WEST Search History

Hide Items | Restore | Clear | Cancel

DATE: Saturday, May 26, 2007

Hide?	Set Name	Query	Hit Count
	DB=DWPI,JPAB,EPAB,USOC,USPT,PGPB; PLUR=YES; OP=ADJ		
☐	L25	SIMONET-W-S!	5
☐	L24	SIMONET-WILLIAM-SCOTT!	4
☐	L23	SIMONET-WILLIAM-S!	3
☐	L22	SIMONET-WILLIAM!	3
☐	L21	SIMONET-W!	4
	DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI; PLUR=YES; OP=ADJ		
☐	L20	l18 and l19	23
☐	L19	l17 and bone density	50
☐	L18	L17 and bone mass	40
☐	L17	ocif and bones	156
☐	L16	ocifL15	0
☐	L15	ostoclastogenesis and factor	1
☐	L14	osteoclast inhibiting factor	1
	DB=DWPI,JPAB,EPAB,USOC,USPT,PGPB; PLUR=YES; OP=ADJ		
☐	L13	GOTO-MASAAKI!	167
	DB=USPT,PGPB; PLUR=YES; OP=ADJ		
☐	L12	HIGASHIO-KANJI!	41
☐	L11	UEDA-MASATSUGU!	20
☐	L10	UEDA-MASATSUGU!	20
☐	L9	MORINAGA-TOMONORI!	22
☐	L8	NAKAGAWA-NOBUAKI!	31
☐	L7	YASUDA-HISATAKA!	20
☐	L6	SHIMA-NOBUYUKI!	24
☐	L5	KOBAYASHI-FUMIE!	30
☐	L4	YANO-KAZUKI!	22
☐	L3	MOCHIZUKI-SHINICHI!	19
☐	L2	TSUDA-EISUKE!	32
☐	L1	GOTO-MASAAKI!	83

END OF SEARCH HISTORY

Case # 10/785,114
5/26/07 AD
WEST (USPT, USOC, JPAB, EPGA, DWPI, PGPB)

```
FILE 'MEDLINE' ENTERED AT 18:19:53 ON 26 MAY 2007

FILE 'BIOSIS' ENTERED AT 18:19:53 ON 26 MAY 2007
Copyright (c) 2007 The Thomson Corporation

=> s ocif
L1          163 OCIF

=> s osteoprotegerin
L2         3686 OSTEOPROTEGERIN

=> s sl1 and l2
L3            0 SL1 AND L2

=> s l2 and bone
L4         3009 L2 AND BONE

=> s l1 and bones
L5            9 L1 AND BONES

=> s l1 and bon
L6            0 L1 AND BON

=> s l4 and py<1997
   1 FILES SEARCHED...
L7            0 L4 AND PY<1997

=> s l4 and @py<1997
'1997' NOT A VALID FIELD CODE
'1997' NOT A VALID FIELD CODE
L8            0 L4 AND @PY<1997

=> s l4 and PY<1997
L9            0 L4 AND PY<1997

=> s l4 and density
L10         544 L4 AND DENSITY

=> s l10 and mass
L11         132 L10 AND MASS

=> s l11 and simonet
L12           0 L11 AND SIMONET

=> dup rem l11
PROCESSING COMPLETED FOR L11
L13           95 DUP REM L11 (37 DUPLICATES REMOVED)

=> l13 and l5
L13 IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> s l13 and l5
L14           0 L13 AND L5

=> dup rem l5
PROCESSING COMPLETED FOR L5
L15           8 DUP REM L5 (1 DUPLICATE REMOVED)

=> disp l5 ibib abs 1-8
```

STN (BIOSIS, MEDLINE)
5/26/07
AU
Case # 10/785,114

L5 ANSWER 1 OF 9 MEDLINE on STN
ACCESSION NUMBER: 2005006273 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15632471
TITLE: Osteoclastogenesis Inhibitory Factor (OCIF) /Osteoprotegerin (OPG) as a new therapeutic agent for osteoporosis.
AUTHOR: Mochizuki Shin-ichi; Kiyokawa Akiko; Nagayama Yuki
CORPORATE SOURCE: Biological Research Laboratories, Sankyo Co., Ltd., Japan.
SOURCE: Clinical calcium, (2005 Jan) Vol. 15, No. 1, pp. 35-42. Ref: 25
Journal code: 9433326. ISSN: 0917-5857.
PUB. COUNTRY: Japan
DOCUMENT TYPE: (ENGLISH ABSTRACT)
Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LANGUAGE: Japanese
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200505
ENTRY DATE: Entered STN: 6 Jan 2005
Last Updated on STN: 6 May 2005
Entered Medline: 5 May 2005

AB Osteoclastogenesis inhibitory factor (OCIF) is a novel member of the Tumor Necrosis Factor Receptor superfamily and identical with Osteoprotegerin (OPG) discovered by Amgen researchers. OCIF/OPG is a decoy receptor (a soluble receptor that acts as an antagonist) that binds to osteoblast cells via Receptor Activator of NF-kappa B Ligand (RANKL) involved in the signal transduction between osteoblast cells and osteoclastic progenitor cells, eventually suppressing differentiation of the progenitor cells into osteoclasts. The balance between the OCIF/OPG and RANKL is regulated by cytokines and hormones. Studies on OCIF/OPG-RANKL system have provided important insights into the pathogenesis of human metabolic bone diseases, leading to the expectation of OCIF/OPG as a novel candidate for a therapeutic agent for metabolic bone diseases.

L5 ANSWER 2 OF 9 MEDLINE on STN
ACCESSION NUMBER: 2004142578 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15035105
TITLE: OPG(osteoprotegerin)/OCIF(osteoclastogenesis inhibitory factor).
AUTHOR: Inoue Daisuke
CORPORATE SOURCE: Department of Medicine and Bioregulatory Sciences, University of Tokushima Graduate School of Medicine.
SOURCE: Nippon rinsho. Japanese journal of clinical medicine, (2004 Feb) Vol. 62 Suppl 2, pp. 102-6. Ref: 24
Journal code: 0420546. ISSN: 0047-1852.
PUB. COUNTRY: Japan
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LANGUAGE: Japanese
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200406
ENTRY DATE: Entered STN: 24 Mar 2004
Last Updated on STN: 2 Jun 2004
Entered Medline: 1 Jun 2004

L5 ANSWER 3 OF 9 MEDLINE on STN
ACCESSION NUMBER: 2002443157 MEDLINE
DOCUMENT NUMBER: PubMed ID: 12203706
TITLE: Adrenergic regulation of bone metabolism: possible involvement of sympathetic innervation of osteoblastic and osteoclastic cells.
AUTHOR: Togari Akifumi
CORPORATE SOURCE: Department of Pharmacology, School of Dentistry,

Aichi-Gakuin University, Nagoya 464-8650, Japan..
togariaf@dpc.aichi-gakuin.ac.jp
SOURCE: Microscopy research and technique, (2002 Jul 15) Vol. 58, No. 2, pp. 77-84. Ref: 70
Journal code: 9203012. ISSN: 1059-910X.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
General Review; (REVIEW)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200211
ENTRY DATE: Entered STN: 31 Aug 2002
Last Updated on STN: 12 Dec 2002
Entered Medline: 20 Nov 2002
AB It has been demonstrated that human osteoblastic as well as osteoclastic cells are equipped with adrenergic receptors and neuropeptide receptors and that they constitutively express diffusible axon guidance molecules that are known to function as a chemoattractant and/or chemorepellent for growing nerve fibers. These findings suggest that the extension of axons of sympathetic and peripheral sensory neurons to osteoblastic and osteoclastic cells is required for the dynamic neural regulation of local bone metabolism. Recently, bone resorption modulated by sympathetic stimulation was demonstrated to be associated with ODF (osteoclast differentiation factor) and OCIF (osteoclastogenesis inhibitory factor) produced by osteoblasts/stromal cells. This review summarizes the evidence implicating sympathetic neuron action in bone metabolism. The possible function of osteoclastogenesis, which could result in the initiation of sympathomimetic bone resorption, is also discussed.

L5 ANSWER 4 OF 9 MEDLINE on STN
ACCESSION NUMBER: 2002246338 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11985054
TITLE: How is bone formed and resorbed?-- molecular mechanisms of bone formation and resorption.
AUTHOR: Suda Tatsuo
CORPORATE SOURCE: Research Center for Genomic Medicine, Saitama Medical School, Hidaka 350-1241.
SOURCE: Rinsho byori. The Japanese journal of clinical pathology, (2002 Mar) Vol. 50, No. 3, pp. 267-72.
Journal code: 2984781R. ISSN: 0047-1860.
PUB. COUNTRY: Japan
DOCUMENT TYPE: (ENGLISH ABSTRACT)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Japanese
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200205
ENTRY DATE: Entered STN: 3 May 2002
Last Updated on STN: 9 May 2002
Entered Medline: 8 May 2002
AB Bone has developed as a storage of calcium as well as a supporting tissue in vertebrates. Bone is a complex tissue in which resorption and formation take place throughout life. This process is called bone remodeling. Osteotrophic hormones such as 1 alpha,25-dihydroxyvitamin D3[1 alpha,25 (OH) 2D3], parathyroid hormone (PTH) and calcitonin maintain serum clacium homeostasis within a narrow range of 9 to 10 mg/dl by regulating intestinal absorption of calcium and bone remodeling. Bone tissue contains various types of cells, of which bone-forming osteoblasts and bone-resorbing osteoclasts are mainly responsible for bone remodeling. Osteoblasts arise from common progenitors with chondrocytes, myotubes and adipocytes. Recently, four research groups independently identified core-binding protein alpha-1(Cbfa-1) as a key transcription factor for osteoblast differentiation and bone formation, since Cbaf-1 knockout mice

completely lacked bone formation due to maturation arrest of osteoblasts. In contrast, multinucleated osteoclasts are primarily responsible for bone resorption. The recent discovery of new members of tumor necroses factor (TNF) receptor-ligand family has indicated the precise mechanism by which osteoblasts/stromal cells regulate osteoclast formation. Osteoblasts/stromal cells express a new member of the TNF ligand family "osteoclast differentiation factor (ODF)" as a membrane-associated factor. Osteoclast progenitors which express ODF receptor(RANK) recognize ODF through cell-to-cell interaction with osteoblasts/stromal cells, then differentiate into osteoclats. Osteoprotegerin (OPG)/osteoclastogenesis inhibitory factor (OCIF) is a soluble decoy receptor for ODF. Thus, ODF, RANK and OPG/OCIF are the three key molecules for osteoclast formation. The discovery of Cbfa-1 and ODF may establish a new way to treat several metabolic bone diseases caused by abnormal bone formation and resorption.

L5 ANSWER 5 OF 9 MEDLINE on STN
ACCESSION NUMBER: 2001476587 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11519698
TITLE: Effects of a bisphosphonate on the expression of bone specific genes after autogenous free bone grafting in rats.
AUTHOR: Myoung H; Park J Y; Choung P H
CORPORATE SOURCE: Department of Oral and Maxillofacial Surgery, College of Dentistry and Craniofacial tissue Engineering Laboratory, Seoul National University, Korea.
SOURCE: Journal of periodontal research, (2001 Aug) Vol. 36, No. 4, pp. 244-51.
Journal code: 0055107. ISSN: 0022-3484.
PUB. COUNTRY: Denmark
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Dental Journals; Priority Journals
ENTRY MONTH: 200109
ENTRY DATE: Entered STN: 27 Aug 2001
Last Updated on STN: 10 Sep 2001
Entered Medline: 6 Sep 2001

AB The purpose of this study was to evaluate the clinical availability of a bisphosphonate in autogenous free bone grafts. Bisphosphonate (0.01 mg/kg/day) was administered daily after an autogenous free bone graft on a rat calvarium. The effects of a bisphosphonate on the resorption of grafted bone and mRNA expression in bone specific genes, i.e. bone morphogenetic protein 2, bone morphogenetic protein 4, alkaline phosphatase, osteocalcin, osteoclast inhibitory factor and calcitonin receptor, were studied via a reverse transcription-polymerase chain reaction (RT-PCR), real time RT-PCR and tartrate-resistant alkaline phosphatase (TRAP) staining. In a clinical and histomorphological review, bone resorption decreased in the experimental group in contrast to the control group where active bone resorption was observed. Bisphosphonate altered not only the mRNA expression of the bone resorption associated genes but also the bone formation associated genes. The expression of the calcitonin receptor (CTR) mRNA was not detected and the osteoclast inhibitory factor (OCIF) was significantly up-regulated in the experimental group as opposed to the control group. The expressions of osteocalcin and alkaline phosphatase mRNAs were also higher in the experimental group. However, there was no significant difference in the mRNA expression of bone morphogenetic proteins between the two groups. The data suggest the possibility of a clinical application of bisphosphonates for decreasing resorption of grafted bone.

L5 ANSWER 6 OF 9 MEDLINE on STN
ACCESSION NUMBER: 2000292951 MEDLINE
DOCUMENT NUMBER: PubMed ID: 10822231
TITLE: Involvement of osteoprotegerin/osteoclastogenesis

inhibitory factor in the stimulation of osteoclast formation by parathyroid hormone in mouse bone cells.
AUTHOR: Kanzawa M; Sugimoto T; Kanatani M; Chihara K
CORPORATE SOURCE: Third Division, Department of Medicine, Kobe University School of Medicine, 7-5-1 Kusunoki-cho, Chuo-ku, Kobe 650-0017, Japan.
SOURCE: European journal of endocrinology / European Federation of Endocrine Societies, (2000 Jun) Vol. 142, No. 6, pp. 661-4. Journal code: 9423848. ISSN: 0804-4643.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals; Space Life Sciences
ENTRY MONTH: 200008
ENTRY DATE: Entered STN: 11 Aug 2000
Last Updated on STN: 11 Aug 2000
Entered Medline: 2 Aug 2000

AB OBJECTIVE: Recently, osteoprotegerin (OPG)/osteoclastogenesis inhibitory factor (OCIF) has been shown to inhibit osteoclast differentiation. On the other hand, we have reported that parathyroid hormone (PTH) stimulated osteoclast formation, presumably through a PTH-responsive cAMP-dependent protein kinase (PKA) pathway, in mouse bone cells. DESIGN AND METHODS: The present study was performed to examine how OPG/OCIF expression is regulated by PTH and to further investigate the possible involvement of OPG/OCIF in the stimulation of osteoclast formation by PTH in mouse bone cells. OPG/OCIF mRNA expression was analyzed by Northern hybridization after 24h treatments of mouse whole bone cells and mouse stromal cell line, ST2 cells with PTH or various second messenger analogs. RESULTS: Human (h) PTH(1-34) (10(-10) and 10(-8)mol/l) but not 10(-8)mol/l hPTH(3-34) down-regulated OPG/OCIF mRNA expression in mouse bone cells. Dibutyryl cAMP, but not phorbol ester, an activator of protein kinase C, or A23187, a calcium ionophore, down-regulated it. The same was also observed in ST2 cells, suggesting that stromal cells are responsible for the inhibitory effect of PTH and cAMP analogs on OPG/OCIF mRNA expression in mouse bone cells. CONCLUSIONS: The present study indicates that PTH down-regulates OPG/OCIF mRNA expression through the PKA pathway in stromal cells, which would result in the stimulation of osteoclast formation.

L5 ANSWER 7 OF 9 MEDLINE on STN
ACCESSION NUMBER: 1999097247 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9878548
TITLE: RANK is the essential signaling receptor for osteoclast differentiation factor in osteoclastogenesis.
AUTHOR: Nakagawa N; Kinosaki M; Yamaguchi K; Shima N; Yasuda H; Yano K; Morinaga T; Higashio K
CORPORATE SOURCE: Research Institute of Life Science, Snow Brand Milk Products Co., Ltd., Tochigi, Japan.. fvbd7042@mb.infoweb.ne.jp
SOURCE: Biochemical and biophysical research communications, (1998 Dec 18) Vol. 253, No. 2, pp. 395-400. Journal code: 0372516. ISSN: 0006-291X.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals; Space Life Sciences
ENTRY MONTH: 199901
ENTRY DATE: Entered STN: 2 Feb 1999
Last Updated on STN: 20 Apr 2002
Entered Medline: 20 Jan 1999

AB Osteoclast differentiation factor (ODF) is a ligand for osteoclastogenesis-inhibitory factor/osteoprotegerin (OCIF/OPG),

and mediates an essential signal for osteoclastogenesis. Soluble-form ODF binds directly to osteoclast progenitors, suggesting the presence of a membrane-bound receptor for ODF (ODFR) on the cells. To understand the ODF-mediated signal transduction mechanism in osteoclastogenesis, we molecularly cloned ODFR from a mouse macrophage-like osteoclast progenitor cell line, C7. Nucleotide sequence analysis revealed that ODFR is identical to RANK, a recently identified member of the tumor necrosis factor receptor (TNFR) family, which is involved in the regulation of dendritic cell function. A polyclonal antibody against the extracellular domain of RANK induced osteoclastogenesis in the presence of macrophage colony-stimulating factor (M-CSF). In contrast, both a genetically engineered soluble RANK and Fab fragment of the antibody blocked the binding of ODF to RANK and ODF-mediated osteoclastogenesis. These results indicate that RANK is the signaling receptor essential for ODF-mediated osteoclastogenesis.

L5 ANSWER 8 OF 9 MEDLINE on STN
ACCESSION NUMBER: 1998321175 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9647741
TITLE: Severe osteoporosis in mice lacking osteoclastogenesis inhibitory factor/osteoprotegerin.
AUTHOR: Mizuno A; Amizuka N; Irie K; Murakami A; Fujise N; Kanno T; Sato Y; Nakagawa N; Yasuda H; Mochizuki S; Gomibuchi T; Yano K; Shima N; Washida N; Tsuda E; Morinaga T; Higashio K; Ozawa H
CORPORATE SOURCE: Research Institute of Life Science, Snow Brand Milk Products, Co., Ltd., Tochigi, Japan.
SOURCE: Biochemical and biophysical research communications, (1998 Jun 29) Vol. 247, No. 3, pp. 610-5.
Journal code: 0372516. ISSN: 0006-291X.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199807
ENTRY DATE: Entered STN: 17 Aug 1998
Last Updated on STN: 17 Aug 1998
Entered Medline: 31 Jul 1998

AB Osteoclasts are multinucleated cells that resorb bone. Osteoclastogenesis inhibitory factor (OCIF), also called osteoprotegerin (OPG), acts as a naturally occurring decoy receptor for osteoclast differentiation factor, which mediates an essential signal to osteoclast progenitors for their differentiation into osteoclasts. Here we show that the OCIF/OPG knockout mice exhibited severe osteoporosis due to enhanced osteoclastogenesis when they grew to be adults. These mice were viable and fertile. They exhibited marked bone loss accompanied by destruction of growth plate and lack of trabecular bone in their femurs. The strength of their bones dramatically decreased. These results demonstrate that OCIF/OPG is a key factor acting as a negative regulator against osteoclastogenesis. The OCIF/OPG knockout mice provide the first animal model for osteoporosis without other obvious abnormalities.

=>

```
FILE 'CAPLUS' ENTERED AT 18:36:21 ON 26 MAY 2007
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)
```



```
FILE COVERS 1907 - 26 May 2007  VOL 146 ISS 23
FILE LAST UPDATED: 25 May 2007  (20070525/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.
They are available for your review at:

http://www.cas.org/infopolicy.html

=> E GOTO MASAAKI/IN 25
E1            3     GOTO MARIKO/IN
E2            1     GOTO MARUTOMO/IN
E3           29 --> GOTO MASAAKI/IN
E4           22     GOTO MASAFUMI/IN
E5            8     GOTO MASAHARU/IN
E6           15     GOTO MASAHIDE/IN
E7           87     GOTO MASAHIKO/IN
E8          227     GOTO MASAHIRO/IN
E9           19     GOTO MASAHISA/IN
E10          34     GOTO MASAHITO/IN
E11           1     GOTO MASAHORO/IN
E12           3     GOTO MASAKATA/IN
E13           9     GOTO MASAKATSU/IN
E14          17     GOTO MASAKAZU/IN
E15          60     GOTO MASAKI/IN
E16          52     GOTO MASAMI/IN
E17           4     GOTO MASAMICHI/IN
E18           3     GOTO MASAMITSU/IN
E19           5     GOTO MASANA/IN
E20           1     GOTO MASANAO/IN
E21           1     GOTO MASANOBU/IN
E22          74     GOTO MASANORI/IN
E23         247     GOTO MASAO/IN
E24          59     GOTO MASAOKI/IN
E25          16     GOTO MASAOMI/IN

=> S (E3) AND (BONE, OCIF)
            29 "GOTO MASAAKI"/IN
        205162 BONE
         23241 BONES
        211698 BONE
                 (BONE OR BONES)
           143 OCIF
             1 OCIFS
           143 OCIF
                 (OCIF OR OCIFS)
             0 BONE, OCIF
                 (BONE(W)OCIF)
```

```
L1            0 ("GOTO MASAAKI"/IN) AND (BONE, OCIF)

=> S (E3) AND ( OCIF)
             29 "GOTO MASAAKI"/IN
            143 OCIF
              1 OCIFS
            143 OCIF
                  (OCIF OR OCIFS)
L2            4 ("GOTO MASAAKI"/IN) AND ( OCIF)

=> DIS L2 1 IBIB IABS
THE ESTIMATED COST FOR THIS REQUEST IS 2.83 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L2   ANSWER 1 OF 4  CAPLUS  COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:         2006:1109548  CAPLUS
DOCUMENT NUMBER:          145:450102
TITLE:                    cDNA cloning and sequences for protein OSIF
                          (osteoclastogenesis inhibitory factor), and methods
                          for its production in mammalian cells
INVENTOR(S):              Goto, Masaaki; Tsuda, Eisuke; Mochizuki,
                          Shin'ichi; Yano, Kazuki; Kobayashi, Fumie; Shima,
                          Nobuyuki; Yasuda, Hisataka; Nakagawa, Nobuaki;
                          Morinaga, Tomonori; Ueda, Masatsugu; Higashio, Kanji
PATENT ASSIGNEE(S):       Sankyo Co., Ltd., Japan
SOURCE:                   U.S., 85pp.
                          CODEN: USXXAM
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   2
PATENT INFORMATION:

     PATENT NO.           KIND   DATE        APPLICATION NO.          DATE
     ---------------      ----   --------    --------------------     --------
     US 7125686            B1    20061024    US 1997-915004           19970820
     IL 117175             A     20051120    IL 1996-117175           19960219
     CA 2213469            A1    19960829    CA 1996-2213469          19960220
     WO 9626217            A1    19960829    WO 1996-JP374            19960220
         W:  AU, CA, CN, FI, HU, JP, KR, MX, NO, NZ, RU, US
         RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
     ZA 9601334            A     19970820    ZA 1996-1334             19960220
     CN 1175956            A     19980311    CN 1996-192019           19960220
     RU 2238948            C2    20041027    RU 2002-120050           19960220
     PT 816380             T     20041231    PT 1996-902484           19960220
     ES 2227579            T3    20050401    ES 1996-902484           19960220
     EP 1528103            A1    20050504    EP 2004-76464            19960220
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE
     CN 1763194            A     20060426    CN 2005-10091137         19960220
     TW 538049             B     20030621    TW 1996-85108022         19960703
     US 2002051969         A1    20020502    US 1998-62113            19980417
     US 7205397            B2    20070417
     US 6919434            B1    20050719    US 1999-338063           19990623
     US 2003153048         A1    20030814    US 2002-232858           20020903
     US 6855808            B2    20050215
     US 2004142426         A1    20040722    US 2004-785109           20040225
     US 2004143859         A1    20040722    US 2004-785114           20040225
     JP 2005013217         A     20050120    JP 2004-63029            20040305
     US 2005014229         A1    20050120    US 2004-929958           20040831
     US 2005026837         A1    20050203    US 2004-929748           20040831
     US 2005118682         A1    20050602    US 2004-979303           20041103
     US 2005124054         A1    20050609    US 2004-979654           20041103
PRIORITY APPLN. INFO.:                       JP 1995-54977        A   19950220
                                             JP 1995-207508       A   19950721
                                             WO 1996-JP374        A2  19960220
```

CN 1996-192019	A3	19960220
EP 1996-902484	A3	19960220
JP 1996-525553	A	19960220
RU 1997-115710	A	19960220
US 1997-915004	A3	19970820
US 2002-232858	A1	20020903
JP 2003-177872	A3	20030623

ABSTRACT:
The invention provides a protein which inhibits osteoclast differentiation and/or maturation, termed osteoclastogenesis inhibitory factor (OCIF), as well as a procedure to produce the OCIF protein. The ***OCIF*** protein was isolated from human embryonic lung fibroblasts IMR-90. The inventors have established a method for accumulating the protein to a high concentration by culturing IMR-90 cells on alumina ceramic pieces, which function as cell adherence matrixes. The OSIF protein has a mol. weight (by SDS-PAGE) of 60 kD under reducing conditions and mol. wts. of 60 kD (a monomer) and 120 kD (a homodimer) under non-reducing conditions, and has affinity for both cation-exchange resins and heparin. Provided are cDNA and protein sequences for OCIF, as well as antibodies having specific affinity for the protein or a method for determining protein concentration using these antibodies.

REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> DIS L2 2 IBIB IABS
THE ESTIMATED COST FOR THIS REQUEST IS 2.83 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L2 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:223074 CAPLUS
DOCUMENT NUMBER: 130:222129
TITLE: Method for diagnosing bone dysbolism
INVENTOR(S): Yano, Kazuki; Kobayashi, Fumie; Goto, Masaaki ; Washida, Naohiro; Tsuda, Eisuke; Higashio, Kanji; Yamada, Yoshiji
PATENT ASSIGNEE(S): Snow Brand Milk Products Co., Ltd., Japan
SOURCE: PCT Int. Appl., 36 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9915691	A1	19990401	WO 1998-JP3421	19980731
W: AU, CA, CN, HU, IL, JP, KR, MX, NO, NZ, RU, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2269114	A1	19990324	CA 1998-2269114	19980731
AU 9884617	A	19990412	AU 1998-84617	19980731
AU 739304	B2	20011011		
EP 974671	A1	20000126	EP 1998-935306	19980731
EP 974671	B1	20060531		
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE, PT, IE, FI				
HU 200002062	A2	20001028	HU 2000-2062	19980731
NZ 335759	A	20020201	NZ 1998-335759	19980731
RU 2203497	C2	20030427	RU 1999-113447	19980731
IL 129535	A	20030706	IL 1998-129535	19980731
AT 328281	T	20060615	AT 1998-935306	19980731
ZA 9806974	A	19990204	ZA 1998-6974	19980804
MX 9904633	A	20000930	MX 1999-4633	19990519
NO 9902472	A	19990521	NO 1999-2472	19990521

US 2002004207	A1	20020110	US 1999-308800	19990524
US 6693175	B2	20040217		
US 2004033533	A1	20040219	US 2003-641088	20030815
US 6998242	B2	20060214		

PRIORITY APPLN. INFO.:

JP 1997-276475	A	19970924
WO 1998-JP3421	W	19980731
US 1999-308800	A1	19990524

ABSTRACT:
A method for diagnosing bone dysbolism, in particular osteoporosis and joint diseases characterized by measuring the concentration of osteoclastogenesis inhibitory
factors (OCIFs) in the bodily fluid; a monoclonal antibody equally recognizing monomeric and dimeric OCIFs; a monoclonal antibody selectively recognizing the dimeric OCIF alone; and OCIF assay kits which contain the monoclonal antibodies of the above two types, recognizing different epitopes of OCIFs, and having a high affinity and a dissociation constant with an antigen of 2 x 10-7 M or below. Immunization of Balb/c mice by i.p. injection, collection of spleen of the immunized mice, hybridization with mouse myeloma P3x63-AG8.653, and growth of the monoclonal antibody-producing hybridoma by the ascite method were shown. The above antibodies and kits are useful in diagnosing bone dysbolism, in particular, osteoporosis and joint diseases or anal. reagents for laboratory use, etc.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> DIS L2 3 IBIB IABS
THE ESTIMATED COST FOR THIS REQUEST IS 2.83 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L2 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1998:708857 CAPLUS
DOCUMENT NUMBER: 129:326927
TITLE: Preparation of osteoclastogenesis inhibitory factor-binding molecule from mouse and cloning and expression of its encoding cDNA
INVENTOR(S): Yamaguchi, Kyoji; Yasuda, Hisataka; Nakagawa, Nobuaki; Shima, Nobuyuki; Kinosaki, Masahiko; Tsuda, Eisuke; Goto, Masaaki; Yano, Kazuki; Tomoyasu, Akihiro; Kobayashi, Fumie; et al.
PATENT ASSIGNEE(S): Snow Brand Milk Products Co., Ltd., Japan
SOURCE: PCT Int. Appl., 151 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9846644	A1	19981022	WO 1998-JP1728	19980415
W: AU, CA, CN, HU, IL, JP, KR, MX, NO, NZ, RU, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2257247	A1	19981022	CA 1998-2257247	19980415
ZA 9803159	A	19981103	ZA 1998-3159	19980415
AU 9868518	A	19981111	AU 1998-68518	19980415
AU 735355	B2	20010705		
EP 911342	A1	19990428	EP 1998-914034	19980415
EP 911342	B1	20060531		
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE, PT, IE, FI, CY				
CN 1222917	A	19990714	CN 1998-800477	19980415
HU 200000717	A2	20000628	HU 2000-717	19980415

NZ 332995	A	20000728	NZ 1998-332995	19980415
JP 3523650	B2	20040426	JP 1998-543741	19980415
RU 2238949	C2	20041027	RU 1999-100615	19980415
EP 1657255	A1	20060517	EP 2005-17241	19980415
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE, PT, IE, FI, CY				
AT 328006	T	20060615	AT 1998-914034	19980415
PT 911342	T	20060831	PT 1998-914034	19980415
ES 2263204	T3	20061201	ES 1998-914034	19980415
KR 2000016598	A	20000325	KR 1998-710194	19981212
NO 9805848	A	19990215	NO 1998-5848	19981214
NO 322632	B1	20061106		
MX 9810700	A	20000831	MX 1998-10700	19981215
US 2003176647	A1	20030918	US 2002-167182	20020611
US 2003208045	A1	20031106	US 2003-460623	20030613
US 7192718	B2	20070320		
JP 2004041195	A	20040212	JP 2003-169309	20030613
US 2005003457	A1	20050106	US 2004-854300	20040527
JP 2005176847	A	20050707	JP 2004-381995	20041228
US 2005208580	A1	20050922	US 2005-135521	20050524
US 2007009520	A1	20070111	US 2006-513178	20060831
PRIORITY APPLN. INFO.:			JP 1997-97808 A	19970415
			JP 1997-151434 A	19970609
			JP 1997-217897 A	19970812
			JP 1997-224803 A	19970821
			JP 1997-332241 A	19971202
			EP 1998-914034 A3	19980415
			JP 1998-543741 A3	19980415
			WO 1998-JP1728 W	19980415
			US 1998-202455 A3	19981215
			US 2002-167182 A1	20020611
			JP 2003-169309 A3	20030613
			US 2004-854300 A1	20040527

ABSTRACT:
A osteoclastogenesis inhibitory factor (OCIF)-binding mol. (OBM) is prepared from the membrane fractions of mouse osteoblastoid stroma cell line ST2 and characterized. OBM exhibits a mol. weight of 30,000-40,000 or 40,000±4,000 by SDS-PAGE, or 90,000-110,000 if crosslinked. The cDNA encoding OBM is isolated from ST2 cell by using the primers derived from the partial peptide sequence of OBM, and its amino acid sequence deduced. Preparation of soluble form OBM
(amino acids 72-316 or 76-316) in transgenic Escherichia coli as a fusion protein with thioredoxin was also shown. Claimed are a method for screening a substance regulating the expression of OBM, a substance inhibiting or modifying the biol. activity of OBM, or an OBM receptor, medicinal compns. containing the substances thus obtained, and antibodies to OBM and drugs containing them.

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> DIS L2 4 IBIB IABS
THE ESTIMATED COST FOR THIS REQUEST IS 2.83 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L2 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1996:628559 CAPLUS
DOCUMENT NUMBER: 125:271959
TITLE: Cloning and expression of cDNA for human osteoclastogenesis inhibitory factor and variants and mutants and their clinical uses
INVENTOR(S): Goto, Masaaki; Tsuda, Eisuke; Mochizuki, Shin'ichi; Yano, Kazuki; Kobayashi, Fumie; Shima, Nobuyuki; Yasuda, Hisataka; Nakagawa, Nobuaki; Morinaga, Tomonori; et al.; et al.

PATENT ASSIGNEE(S): Snow Brand Milk Products Co., Ltd., Japan; Goto Masaaki
SOURCE: PCT Int. Appl., 183 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9626217	A1	19960829	WO 1996-JP374	19960220
W: AU, CA, CN, FI, HU, JP, KR, MX, NO, NZ, RU, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
IL 117175	A	20051120	IL 1996-117175	19960219
CA 2213469	A1	19960829	CA 1996-2213469	19960220
AU 9646773	A	19960911	AU 1996-46773	19960220
AU 702557	B2	19990225		
ZA 9601334	A	19970820	ZA 1996-1334	19960220
EP 816380	A1	19980107	EP 1996-902484	19960220
EP 816380	B1	20040825		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
CN 1175956	A	19980311	CN 1996-192019	19960220
HU 9900422	A2	19990628	HU 1999-422	19960220
HU 9900422	A3	20021128		
HU 224570	B1	20051028		
RU 2194714	C2	20021220	RU 1997-115710	19960220
JP 3502102	B2	20040302	JP 1996-525553	19960220
AT 274580	T	20040915	AT 1996-902484	19960220
RU 2238948	C2	20041027	RU 2002-120050	19960220
PT 816380	T	20041231	PT 1996-902484	19960220
ES 2227579	T3	20050401	ES 1996-902484	19960220
EP 1528103	A1	20050504	EP 2004-76464	19960220
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
CN 1763194	A	20060426	CN 2005-10091137	19960220
TW 538049	B	20030621	TW 1996-85108022	19960703
NO 9703801	A	19971020	NO 1997-3801	19970819
NO 318898	B1	20050518		
FI 9703402	A	19971017	FI 1997-3402	19970820
US 7125686	B1	20061024	US 1997-915004	19970820
US 2002051969	A1	20020502	US 1998-62113	19980417
US 7205397	B2	20070417		
US 6919434	B1	20050719	US 1999-338063	19990623
US 2003153048	A1	20030814	US 2002-232858	20020903
US 6855808	B2	20050215		
JP 2004000237	A	20040108	JP 2003-177872	20030623
JP 3793180	B2	20060705		
US 2004142426	A1	20040722	US 2004-785109	20040225
US 2004143859	A1	20040722	US 2004-785114	20040225
JP 2005013217	A	20050120	JP 2004-63029	20040305
US 2005014229	A1	20050120	US 2004-929958	20040831
US 2005026837	A1	20050203	US 2004-929748	20040831
US 2005118682	A1	20050602	US 2004-979303	20041103
US 2005124054	A1	20050609	US 2004-979654	20041103

PRIORITY APPLN. INFO.:		
JP 1995-54977	A	19950220
JP 1995-207508	A	19950721
JP 1996-525553	A	19960220
CN 1996-192019	A3	19960220
EP 1996-902484	A3	19960220
RU 1997-115710	A	19960220
WO 1996-JP374	W	19960220
US 1997-915004	A3	19970820
US 2002-232858	A1	20020903
JP 2003-177872	A3	20030623

ABSTRACT:
Osteoclastogenesis inhibitory factor (OCIF), a novel protein having an activity of suppressing the differentiation and/or maturation of osteoclasts, is prepared from the culture of human fibroblast IMR-90 and characterized. This protein has a mol. weight of about 60 kDa under reductive conditions or about 120 kDa under non-reductive conditions. It also exhibits affinity to cationic exchanger and heparin. The cDNA encoding OCIF, variants OCIF2.apprx.5, and its mutants are provided, and their amino acid sequence deduced. Expression of the cDNA for OCIF in transgenic host such as CHO cell and purification of recombinant OCIF, and cloning of genomic DNA for human OCIF are demonstrated. Monoclonal/polyclonal antibodies to OCIF are also prepared for use in the assay of ***OCIF.***

=> FIL STNGUIDE

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	22.78	22.99

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-3.12	-3.12

FILE 'STNGUIDE' ENTERED AT 18:38:09 ON 26 MAY 2007

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: May 25, 2007 (20070525/UP).

=> FIL CAPLUS

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.06	23.05

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-3.12

FILE 'CAPLUS' ENTERED AT 18:38:35 ON 26 MAY 2007

FILE COVERS 1907 - 26 May 2007 VOL 146 ISS 23
FILE LAST UPDATED: 25 May 2007 (20070525/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

http://www.cas.org/infopolicy.html

```
=> E TSUDA EISUKE/IN 25
E1            2     TSUDA EIJI/IN
E2            4     TSUDA EINOSUKE/IN
E3           15 --> TSUDA EISUKE/IN
E4            1     TSUDA EIZA/IN
E5           15     TSUDA EKIJI/IN
E6            1     TSUDA FUKUHITO/IN
E7           17     TSUDA FUMIAKI/IN
E8            1     TSUDA FUMIKO/IN
E9            1     TSUDA FUMIRO/IN
E10           1     TSUDA GAKUSHI/IN
E11           1     TSUDA GI/IN
E12           4     TSUDA GORO/IN
E13           5     TSUDA HAJIME/IN
E14           1     TSUDA HARUHISA/IN
E15           1     TSUDA HARUKI/IN
E16          60     TSUDA HIDEAKI/IN
E17           1     TSUDA HIDEKAZU/IN
E18          13     TSUDA HIDEKI/IN
E19          26     TSUDA HIDEO/IN
E20           1     TSUDA HIDESHI/IN
E21           7     TSUDA HIDETAKA/IN
E22           1     TSUDA HIDETOSHI/IN
E23           5     TSUDA HIDEYORI/IN
E24          57     TSUDA HIDEYUKI/IN
E25           2     TSUDA HIROAKI/IN

=> S (E3) AND ( OCIF)
             15 "TSUDA EISUKE"/IN
            143 OCIF
              1 OCIFS
            143 OCIF
                (OCIF OR OCIFS)
L3           10 ("TSUDA EISUKE"/IN) AND ( OCIF)

=> DIS L3 1 SAM

L3   ANSWER 1 OF 10  CAPLUS  COPYRIGHT 2007 ACS on STN
INCL 435069100; 530350000; 530399000; 530412000
CC   3-3 (Biochemical Genetics)
     Section cross-reference(s): 1, 6, 13
TI   cDNA cloning and sequences for protein OSIF (osteoclastogenesis inhibitory
     factor), and methods for its production in mammalian cells
ST   sequence OSIF osteoclastogenesis inhibitory factor cDNA human; human
     fibroblast cloning OSIF osteoclastogenesis inhibitory factor prodn
IT   Animal cell line
        (293, EBNA, expression host; cDNA cloning and sequences for protein
        OSIF (osteoclastogenesis inhibitory factor), and methods for its production
        in mammalian cells)
IT   Animal cell line
        (CHO, expression host; cDNA cloning and sequences for protein OSIF
        (osteoclastogenesis inhibitory factor), and methods for its production in
        mammalian cells)
IT   Animal cell line
        (IMR-90, expression host; cDNA cloning and sequences for protein OSIF
        (osteoclastogenesis inhibitory factor), and methods for its production in
        mammalian cells)
IT   Fibroblast
        (OCIF protein isolated from; cDNA cloning and sequences for
        protein OSIF (osteoclastogenesis inhibitory factor), and methods for
        its production in mammalian cells)
IT   Proteins
```

RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(OSIF (osteoclastogenesis inhibitory factor); cDNA cloning and sequences for protein OSIF (osteoclastogenesis inhibitory factor), and methods for its production in mammalian cells)

IT Gel electrophoresis
(OSIF mol. weight determined using; cDNA cloning and sequences for protein OSIF
(osteoclastogenesis inhibitory factor), and methods for its production in mammalian cells)

IT Epitopes
Genetic engineering
(OSIF; cDNA cloning and sequences for protein OSIF (osteoclastogenesis inhibitory factor), and methods for its production in mammalian cells)

IT Gene, animal
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(OSIF; cDNA cloning and sequences for protein OSIF (osteoclastogenesis inhibitory factor), and methods for its production in mammalian cells)

IT Cation exchangers
(affinity for; cDNA cloning and sequences for protein OSIF (osteoclastogenesis inhibitory factor), and methods for its production in mammalian cells)

IT Ceramics
(alumina ceramic pieces, as cell adherence matrixes, in protein production; cDNA cloning and sequences for protein OSIF (osteoclastogenesis inhibitory factor), and methods for its production in mammalian cells)

IT Antiosteoporotic agents
Drug screening
Human
Molecular cloning
Osteoporosis
Protein sequences
cDNA sequences
(cDNA cloning and sequences for protein OSIF (osteoclastogenesis inhibitory factor), and methods for its production in mammalian cells)

IT Antibodies and Immunoglobulins
RL: ARG (Analytical reagent use); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(cDNA cloning and sequences for protein OSIF (osteoclastogenesis inhibitory factor), and methods for its production in mammalian cells)

IT Osteoclast
(differentiation and/or maturation, modulating; cDNA cloning and sequences for protein OSIF (osteoclastogenesis inhibitory factor), and methods for its production in mammalian cells)

IT Animal cell
(mammalian, expression host; cDNA cloning and sequences for protein OSIF (osteoclastogenesis inhibitory factor), and methods for its production in mammalian cells)

IT Signal peptides
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(of OSIF; cDNA cloning and sequences for protein OSIF (osteoclastogenesis inhibitory factor), and methods for its production in mammalian cells)

IT Heating
(osteoclast differentiation inhibitory activity of OSIF decreased with; cDNA cloning and sequences for protein OSIF (osteoclastogenesis inhibitory factor), and methods for its production in mammalian cells)

IT Cell differentiation
(osteoclast, modulating; cDNA cloning and sequences for protein OSIF (osteoclastogenesis inhibitory factor), and methods for its production in mammalian cells)

IT 9005-49-6D, Heparin, derivs.
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(affinity for; cDNA cloning and sequences for protein OSIF (osteoclastogenesis inhibitory factor), and methods for its production in mammalian cells)

IT 913068-60-7P 913120-05-5P 913120-06-6P 913120-07-7P
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(amino acid sequence, OSIF peptide; cDNA cloning and sequences for protein OSIF (osteoclastogenesis inhibitory factor), and methods for its production in mammalian cells)

IT 913120-08-8P 913120-09-9P 913120-15-7P 913120-16-8P 913120-17-9P
913120-18-0P
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(amino acid sequence; cDNA cloning and sequences for protein OSIF (osteoclastogenesis inhibitory factor), and methods for its production in mammalian cells)

IT 1344-28-1, Alumina, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(ceramic pieces, as cell adherence matrixes, in protein production; cDNA cloning and sequences for protein OSIF (osteoclastogenesis inhibitory factor), and methods for its production in mammalian cells)

IT 913120-10-2P 913120-11-3P 913120-12-4P 913120-13-5P 913120-14-6P
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(nucleotide sequence; cDNA cloning and sequences for protein OSIF (osteoclastogenesis inhibitory factor), and methods for its production in mammalian cells)

IT 913120-19-1 913120-20-4 913120-21-5 913120-22-6 913120-23-7
913120-24-8 913120-25-9 913120-26-0 913120-27-1 913120-28-2
913120-29-3 913120-30-6 913120-31-7 913120-32-8 913120-33-9
913120-34-0 913120-35-1 913120-36-2 913120-37-3 913120-38-4
913120-39-5 913120-40-8 913120-41-9 913120-42-0 913120-43-1
913120-44-2 913120-45-3 913120-46-4 913120-47-5 913120-48-6
913120-49-7 913120-50-0 913120-51-1 913120-52-2 913120-53-3
913120-54-4 913120-55-5 913120-56-6 913120-57-7 913120-58-8
913120-59-9 913120-60-2 913120-61-3 913120-62-4 913120-63-5
913120-64-6 913120-86-2 913120-87-3 913120-88-4 913120-89-5
913120-90-8 913120-91-9 913120-92-0 913120-93-1 913120-94-2
913120-95-3 913120-96-4 913120-97-5 913120-98-6 913120-99-7
913121-00-3 913121-01-4 913121-02-5 913121-03-6 913121-04-7
913121-05-8 913121-06-9 913121-08-1 913121-09-2 913121-10-5
913121-11-6
RL: PRP (Properties)
(unclaimed nucleotide sequence; cDNA cloning and sequences for protein OSIF (osteoclastogenesis inhibitory factor), and methods for its production in mammalian cells)

IT 913120-65-7 913120-66-8 913120-67-9 913120-68-0 913120-69-1
913120-70-4 913120-71-5 913120-72-6 913120-73-7 913120-74-8
913120-75-9 913120-76-0 913120-77-1 913120-78-2 913120-79-3
913120-80-6 913120-81-7 913120-82-8 913120-83-9 913120-84-0
913120-85-1 913121-07-0
RL: PRP (Properties)
(unclaimed protein sequence; cDNA cloning and sequences for protein OSIF (osteoclastogenesis inhibitory factor), and methods for its production in mammalian cells)

=> DIS L3 2 IBIB IABS

THE ESTIMATED COST FOR THIS REQUEST IS 2.83 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L3 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:584657 CAPLUS
DOCUMENT NUMBER: 141:145689
TITLE: Remedies and preventives for bone metabolism disorder containing osteoclastogenesis inhibitory factor-polysaccharide composites
INVENTOR(S): Yamamoto, Shinichi; Okada, Junichi; Kurihara, Atsushi; Numasawa, Taku; Kondo, Junichi; Tsuda, Eisuke ; Mochizuki, Shinichi; Miyazaki, Hideki; Nishi, Hirotaka
PATENT ASSIGNEE(S): Sankyo Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 41 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004203747	A	20040722	JP 2002-371193	20021224
PRIORITY APPLN. INFO.:			JP 2002-371193	20021224

ABSTRACT:
The invention relates to remedies and/or preventives for bone metabolism disorder, characterized by containing composite compds. consisting of osteoclastogenesis inhibitory factor (OCIF) or its related compound and polysaccharide. A recombinant human OCIF (dimer) was reacted with dextran sulfate sodium sulfur to make an injection. The composite showed lower heparin adsorption rate. Also, the OCIF content in the composite was analyzed by ELISA.

=> DIS L3 3 IBIB IABS
THE ESTIMATED COST FOR THIS REQUEST IS 2.83 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L3 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:4784 CAPLUS
DOCUMENT NUMBER: 138:61269
TITLE: A complex comprising OCIF and polysaccharide
INVENTOR(S): Yamamoto, Shinichi; Okada, Junichi; Kurihara, Atsushi; Numazawa, Taku; Kondo, Junichi; Tsuda, Eisuke ; Mochizuki, Shinichi; Nishi, Hirotaka; Miyazaki, Hideki
PATENT ASSIGNEE(S): Sankyo Company Limited, Japan
SOURCE: Eur. Pat. Appl., 31 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1270015	A2	20030102	EP 2002-254497	20020626
EP 1270015	A3	20040225		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
IN 2002CA00387	A	20050311	IN 2002-CA387	20020625
US 2003045456	A1	20030306	US 2002-183091	20020627

ZA 2002005164	A	20030324	ZA 2002-5164		20020627
CA 2392383	A1	20021229	CA 2002-2392383		20020628
NO 2002003144	A	20021230	NO 2002-3144		20020628
AU 200250719	A	20030102	AU 2002-50719		20020628
AU 783126	B2	20050929			
HU 200202119	A2	20030428	HU 2002-2119		20020628
JP 2003160601	A	20030603	JP 2002-190407		20020628
BR 2002002439	A	20030610	BR 2002-2439		20020628
SG 98059	A1	20030820	SG 2002-3944		20020628
RU 2232594	C2	20040720	RU 2002-117385		20020628
CN 1442201	A	20030917	CN 2002-155849		20020629
US 2003139325	A1	20030724	US 2003-364045		20030211
US 2006084595	A1	20060420	US 2005-254836		20051021
PRIORITY APPLN. INFO.:			JP 2001-198985	A	20010629
			US 2002-183091	A1	20020627

ABSTRACT:
A novel complex comprising at least one substance selected from the group consisting of osteoclastogenesis-inhibitory factor (OCIF), analogs thereof, and variants thereof, which is bound to at least one substance selected from the group consisting of polysaccharides and derivs. thereof shows prolonged retention in the bloodstream after administration making it useful in the treatment and prophylaxis of bone metabolic diseases.

=> DIS L3 4 IBIB IABS
THE ESTIMATED COST FOR THIS REQUEST IS 2.83 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L3 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:	2000:290857 CAPLUS
DOCUMENT NUMBER:	132:284272
TITLE:	Remedies containing osteoclastogenesis inhibitory factor for bone metabolic errors
INVENTOR(S):	Mochizuki, Shinichi; Fujise, Nobuaki; Masuyama, Chiharu; Tsuda, Eisuke; Higashio, Kanji
PATENT ASSIGNEE(S):	Snow Brand Milk Products Co., Ltd., Japan; Sankyo Co., Ltd.
SOURCE:	PCT Int. Appl., 32 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	Japanese
FAMILY ACC. NUM. COUNT:	1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000024416	A1	20000504	WO 1999-JP5963	19991028
W: AU, BR, CA, CN, CZ, HU, ID, IL, IN, JP, KR, MX, NO, NZ, PL, RU, TR, US, ZA				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2347107	A1	20000504	CA 1999-2347107	19991028
AU 9964877	A	20000515	AU 1999-64877	19991028
AU 755422	B2	20021212		
BR 9914834	A	20010814	BR 1999-14834	19991028
EP 1127578	A1	20010829	EP 1999-952793	19991028
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
TR 200101146	T2	20010921	TR 2001-200101146	19991028
HU 200104126	A2	20020328	HU 2001-4126	19991028
TW 529954	B	20030501	TW 1999-88118658	19991028
RU 2223782	C2	20040220	RU 2001-114216	19991028
NZ 511506	A	20040227	NZ 1999-511506	19991028

JP 3860415	B2	20061220	JP 2000-578024		19991028
US 2001031725	A1	20011018	US 2001-834008		20010412
US 6919312	B2	20050719			
ZA 2001003296	A	20011025	ZA 2001-3296		20010423
IN 2001KN00461	A	20050311	IN 2001-KN461		20010424
NO 2001002106	A	20010621	NO 2001-2106		20010427
PRIORITY APPLN. INFO.:			JP 1998-322874	A	19981028
			WO 1999-JP5963	W	19991028

ABSTRACT:
The invention relates to novel remedies for bone metabolic errors. These remedies comprise at least one member selected from the group consisting of osteoclastogenesis inhibitory factor (OCIF), analogs thereof and variants thereof and polysaccharides or derivs. thereof. As the polysaccharides or derivs. thereof, use may be made of heparin, dextran sulfate, etc. These remedies have excellent therapeutic effects on bone metabolic errors such as osteoporosis, hypercalcemia and rheumatoid arthritis and can sustain the activities over a long time, which makes them highly useful as drugs. An injection solution was formulated containing osteoclastogenesis inhibitory factor 500 μg, heparin 2 mg and 0.15 M NaCl- and 0.01 % Tween 80-containing 10 mM phosphate buffer.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> DIS L3 5 IBIB IABS
THE ESTIMATED COST FOR THIS REQUEST IS 2.83 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L3 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:198053 CAPLUS
DOCUMENT NUMBER: 132:232381
TITLE: Proteins having osteoclastogenesis inhibitory factor (OCIF) inhibitory activity, their purification from osteoclasts, and uses for drug screening and pharmaceuticals
INVENTOR(S): Kobayashi, Yukinao; Hageta, Shigeyuki; Yamaguchi, Kyoji; Tsuda, Eisuke; Higashio, Kanji; Miyata, Takashi; Yamada, Takeo; Kumekawa, Masayoshi
PATENT ASSIGNEE(S): Snow Brand Milk Products Co., Ltd., Japan; Sankyo Co., Ltd.
SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000086697	A	20000328	JP 1998-274408	19980910
PRIORITY APPLN. INFO.:			JP 1998-274408	19980910

ABSTRACT:
The proteins show affinity for OCIF by binding to 4 Cys-rich domains at the N-terminal of OCIF, mol. weight .apprx.140,000 ± 10,000 kDa (SDS-PAGE under nonreducing condition), and apparent mol. weight of crosslinked products with monomer-type OCIF of .apprx.200,000 ± 20,000 kDa (SDS-PAGE under nonreducing condition). The proteins are useful for screening of substances which induce or suppress expression of the proteins, substances which enhance or inhibit bone resorption by osteoclasts, or substances which enhance or inhibit the activity of OCIF, and for pharmaceuticals, especially for treatment and diagnosis of metabolic bone diseases. The proteins were purified by solubilization of membrane proteins from rabbit osteoclast membrane

fractions and affinity chromatog. using an OCIF-immobilized column.

=> DIS L3 6 IBIB IABS
THE ESTIMATED COST FOR THIS REQUEST IS 2.83 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L3 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:772206 CAPLUS
DOCUMENT NUMBER: 132:21557
TITLE: Cloning of cDNA for protein capable of binding to the osteoclastogenesis inhibitory factor-binding molecule (OBM) from mice
INVENTOR(S): Yamaguchi, Kyouji; Shima, Nobuyuki; Tsuda, Eisuke; Morinaga, Tomonori; Higashio, Kanji
PATENT ASSIGNEE(S): Snow Brand Milk Products Co., Ltd., Japan; Sankyo Co., Ltd.
SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
JP 11332581	A	19991207	JP 1998-316973		19981020
PRIORITY APPLN. INFO.:			JP 1998-76232	A	19980324

ABSTRACT:
The cDNA encoding for a protein capable of binding to novel osteoclastogenesis inhibitory factor (OCIF)-binding mol. (OBM), or OBM-BP, is isolated from mice. OBM prepared from mouse osteoblastoid stroma cell line ST2 was used for cloning the cDNA for membrane-binding type OBM-BP (clone pOBM-BP1) and secretion-type sOBM-BP (clone pCEPsOBM-BP) from mouse macrophage-like cell line C7. The sOBM-BP-mediated induction of osteoclastogenesis of the cultured spleen cells was also demonstrated. Antibodies to OBM-BP (or sOBM-BP), methods of recombinant preparation of the proteins, methods of immunoassay of OBM-BP, therapeutics containing OBM-BP, and methods of screening inhibitors against the binding between OBM and OBM-BP are also claimed.

=> DIS L3 7 IBIB IABS
THE ESTIMATED COST FOR THIS REQUEST IS 2.83 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L3 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:378119 CAPLUS
DOCUMENT NUMBER: 131:30647
TITLE: Transgenic animals lacking osteoclastogenesis inhibitory factor (OCIF)
INVENTOR(S): Mizuno, Atsuko; Murakami, Akihiko; Fujise, Nobuaki; Sato, Yasushi; Kanno, Takeshi; Tsuda, Eisuke ; Morinaga, Tomonori; Higashio, Kanji
PATENT ASSIGNEE(S): Snow Brand Milk Products Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

JP 11155420	A	19990615	JP 1997-332240	19971202
EP 922760	A2	19990616	EP 1998-122542	19981201
EP 922760	A3	20000112		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
CA 2254949	A1	19990602	CA 1998-2254949	19981202
PRIORITY APPLN. INFO.:			JP 1997-332240 A	19971202

ABSTRACT:
Transgenic animals incapable of forming endogenous OCIF develop bone metabolic disorders such as osteoporosis and are useful for screening of prophylactic and/or therapeutic agents for bone metabolic disorders. Cloning of mouse OCIF gene, preparation of a targeting vector to disrupt exon 2 of ***OCIF*** gene, introduction of the targeting vector to ES cells, transplantation of the targeted ES clones to a foster mother, delivery of newborns, selection of heterozygous mice, and production of homozygous mice by breeding were shown. The OCIF-deficient homozygous transgenic mice developed osteoporosis.

=> DIS L3 8 IBIB IABS
THE ESTIMATED COST FOR THIS REQUEST IS 2.83 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L3 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:223074 CAPLUS
DOCUMENT NUMBER: 130:222129
TITLE: Method for diagnosing bone dysbolism
INVENTOR(S): Yano, Kazuki; Kobayashi, Fumie; Goto, Masaaki; Washida, Naohiro; Tsuda, Eisuke; Higashio, Kanji; Yamada, Yoshiji
PATENT ASSIGNEE(S): Snow Brand Milk Products Co., Ltd., Japan
SOURCE: PCT Int. Appl., 36 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9915691	A1	19990401	WO 1998-JP3421	19980731
W: AU, CA, CN, HU, IL, JP, KR, MX, NO, NZ, RU, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2269114	A1	19990324	CA 1998-2269114	19980731
AU 9884617	A	19990412	AU 1998-84617	19980731
AU 739304	B2	20011011		
EP 974671	A1	20000126	EP 1998-935306	19980731
EP 974671	B1	20060531		
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE, PT, IE, FI				
HU 200002062	A2	20001028	HU 2000-2062	19980731
NZ 335759	A	20020201	NZ 1998-335759	19980731
RU 2203497	C2	20030427	RU 1999-113447	19980731
IL 129535	A	20030706	IL 1998-129535	19980731
AT 328281	T	20060615	AT 1998-935306	19980731
ZA 9806974	A	19990204	ZA 1998-6974	19980804
MX 9904633	A	20000930	MX 1999-4633	19990519
NO 9902472	A	19990521	NO 1999-2472	19990521
US 2002004207	A1	20020110	US 1999-308800	19990524
US 6693175	B2	20040217		
US 2004033533	A1	20040219	US 2003-641088	20030815
US 6998242	B2	20060214		

PRIORITY APPLN. INFO.: JP 1997-276475 A 19970924
WO 1998-JP3421 W 19980731
US 1999-308800 A1 19990524

ABSTRACT:
A method for diagnosing bone dysbolism, in particular osteoporosis and joint diseases characterized by measuring the concentration of osteoclastogenesis inhibitory
factors (OCIFs) in the bodily fluid; a monoclonal antibody equally recognizing monomeric and dimeric OCIFs; a monoclonal antibody selectively recognizing the dimeric OCIF alone; and OCIF assay kits which contain the monoclonal antibodies of the above two types, recognizing different epitopes of OCIFs, and having a high affinity and a dissociation constant with an antigen of 2 x 10-7 M or below. Immunization of Balb/c mice by i.p. injection, collection of spleen of the immunized mice, hybridization with mouse myeloma P3x63-AG8.653, and growth of the monoclonal antibody-producing hybridoma by the ascite method were shown. The above antibodies and kits are useful in diagnosing bone dysbolism, in particular, osteoporosis and joint diseases or anal. reagents for laboratory use, etc.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> DIS L3 9 IBIB IABS
THE ESTIMATED COST FOR THIS REQUEST IS 2.83 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L3 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1998:708857 CAPLUS
DOCUMENT NUMBER: 129:326927
TITLE: Preparation of osteoclastogenesis inhibitory factor-binding molecule from mouse and cloning and expression of its encoding cDNA
INVENTOR(S): Yamaguchi, Kyoji; Yasuda, Hisataka; Nakagawa, Nobuaki; Shima, Nobuyuki; Kinosaki, Masahiko; Tsuda, Eisuke; Goto, Masaaki; Yano, Kazuki; Tomoyasu, Akihiro; Kobayashi, Fumie; et al.
PATENT ASSIGNEE(S): Snow Brand Milk Products Co., Ltd., Japan
SOURCE: PCT Int. Appl., 151 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9846644	A1	19981022	WO 1998-JP1728	19980415
W: AU, CA, CN, HU, IL, JP, KR, MX, NO, NZ, RU, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2257247	A1	19981022	CA 1998-2257247	19980415
ZA 9803159	A	19981103	ZA 1998-3159	19980415
AU 9868518	A	19981111	AU 1998-68518	19980415
AU 735355	B2	20010705		
EP 911342	A1	19990428	EP 1998-914034	19980415
EP 911342	B1	20060531		
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE, PT, IE, FI, CY				
CN 1222917	A	19990714	CN 1998-800477	19980415
HU 200000717	A2	20000628	HU 2000-717	19980415
NZ 332995	A	20000728	NZ 1998-332995	19980415
JP 3523650	B2	20040426	JP 1998-543741	19980415
RU 2238949	C2	20041027	RU 1999-100615	19980415
EP 1657255	A1	20060517	EP 2005-17241	19980415

R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE, PT, IE, FI, CY

AT 328006	T	20060615	AT 1998-914034	19980415
PT 911342	T	20060831	PT 1998-914034	19980415
ES 2263204	T3	20061201	ES 1998-914034	19980415
KR 2000016598	A	20000325	KR 1998-710194	19981212
NO 9805848	A	19990215	NO 1998-5848	19981214
NO 322632	B1	20061106		
MX 9810700	A	20000831	MX 1998-10700	19981215
US 2003176647	A1	20030918	US 2002-167182	20020611
US 2003208045	A1	20031106	US 2003-460623	20030613
US 7192718	B2	20070320		
JP 2004041195	A	20040212	JP 2003-169309	20030613
US 2005003457	A1	20050106	US 2004-854300	20040527
JP 2005176847	A	20050707	JP 2004-381995	20041228
US 2005208580	A1	20050922	US 2005-135521	20050524
US 2007009520	A1	20070111	US 2006-513178	20060831

PRIORITY APPLN. INFO.:

JP 1997-97808	A	19970415
JP 1997-151434	A	19970609
JP 1997-217897	A	19970812
JP 1997-224803	A	19970821
JP 1997-332241	A	19971202
EP 1998-914034	A3	19980415
JP 1998-543741	A3	19980415
WO 1998-JP1728	W	19980415
US 1998-202455	A3	19981215
US 2002-167182	A1	20020611
JP 2003-169309	A3	20030613
US 2004-854300	A1	20040527

ABSTRACT:
A osteoclastogenesis inhibitory factor (OCIF)-binding mol. (OBM) is prepared from the membrane fractions of mouse osteoblastoid stroma cell line ST2 and characterized. OBM exhibits a mol. weight of 30,000-40,000 or 40,000±4,000 by SDS-PAGE, or 90,000-110,000 if crosslinked. The cDNA encoding OBM is isolated from ST2 cell by using the primers derived from the partial peptide sequence of OBM, and its amino acid sequence deduced. Preparation of soluble form OBM
(amino acids 72-316 or 76-316) in transgenic Escherichia coli as a fusion protein with thioredoxin was also shown. Claimed are a method for screening a substance regulating the expression of OBM, a substance inhibiting or modifying the biol. activity of OBM, or an OBM receptor, medicinal compns. containing the substances thus obtained, and antibodies to OBM and drugs containing them.

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> DIS L3 10 IBIB IABS
THE ESTIMATED COST FOR THIS REQUEST IS 2.83 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L3 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1996:628559 CAPLUS
DOCUMENT NUMBER: 125:271959
TITLE: Cloning and expression of cDNA for human osteoclastogenesis inhibitory factor and variants and mutants and their clinical uses
INVENTOR(S): Goto, Masaaki; Tsuda, Eisuke; Mochizuki, Shin'ichi; Yano, Kazuki; Kobayashi, Fumie; Shima, Nobuyuki; Yasuda, Hisataka; Nakagawa, Nobuaki; Morinaga, Tomonori; et al.; et al.
PATENT ASSIGNEE(S): Snow Brand Milk Products Co., Ltd., Japan; Goto Masaaki
SOURCE: PCT Int. Appl., 183 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9626217	A1	19960829	WO 1996-JP374	19960220
W: AU, CA, CN, FI, HU, JP, KR, MX, NO, NZ, RU, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
IL 117175	A	20051120	IL 1996-117175	19960219
CA 2213469	A1	19960829	CA 1996-2213469	19960220
AU 9646773	A	19960911	AU 1996-46773	19960220
AU 702557	B2	19990225		
ZA 9601334	A	19970820	ZA 1996-1334	19960220
EP 816380	A1	19980107	EP 1996-902484	19960220
EP 816380	B1	20040825		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
CN 1175956	A	19980311	CN 1996-192019	19960220
HU 9900422	A2	19990628	HU 1999-422	19960220
HU 9900422	A3	20021128		
HU 224570	B1	20051028		
RU 2194714	C2	20021220	RU 1997-115710	19960220
JP 3502102	B2	20040302	JP 1996-525553	19960220
AT 274580	T	20040915	AT 1996-902484	19960220
RU 2238948	C2	20041027	RU 2002-120050	19960220
PT 816380	T	20041231	PT 1996-902484	19960220
ES 2227579	T3	20050401	ES 1996-902484	19960220
EP 1528103	A1	20050504	EP 2004-76464	19960220
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
CN 1763194	A	20060426	CN 2005-10091137	19960220
TW 538049	B	20030621	TW 1996-85108022	19960703
NO 9703801	A	19971020	NO 1997-3801	19970819
NO 318898	B1	20050518		
FI 9703402	A	19971017	FI 1997-3402	19970820
US 7125686	B1	20061024	US 1997-915004	19970820
US 2002051969	A1	20020502	US 1998-62113	19980417
US 7205397	B2	20070417		
US 6919434	B1	20050719	US 1999-338063	19990623
US 2003153048	A1	20030814	US 2002-232858	20020903
US 6855808	B2	20050215		
JP 2004000237	A	20040108	JP 2003-177872	20030623
JP 3793180	B2	20060705		
US 2004142426	A1	20040722	US 2004-785109	20040225
US 2004143859	A1	20040722	US 2004-785114	20040225
JP 2005013217	A	20050120	JP 2004-63029	20040305
US 2005014229	A1	20050120	US 2004-929958	20040831
US 2005026837	A1	20050203	US 2004-929748	20040831
US 2005118682	A1	20050602	US 2004-979303	20041103
US 2005124054	A1	20050609	US 2004-979654	20041103

PRIORITY APPLN. INFO.:		
JP 1995-54977	A	19950220
JP 1995-207508	A	19950721
JP 1996-525553	A	19960220
CN 1996-192019	A3	19960220
EP 1996-902484	A3	19960220
RU 1997-115710	A	19960220
WO 1996-JP374	W	19960220
US 1997-915004	A3	19970820
US 2002-232858	A1	20020903
JP 2003-177872	A3	20030623

ABSTRACT:
Osteoclastogenesis inhibitory factor (OCIF), a novel protein having an activity of suppressing the differentiation and/or maturation of osteoclasts, is prepared from the culture of human fibroblast IMR-90 and

characterized. This protein has a mol. weight of about 60 kDa under reductive conditions or about 120 kDa under non-reductive conditions. It also exhibits affinity to cationic exchanger and heparin. The cDNA encoding OCIF, variants OCIF2.apprx.5, and its mutants are provided, and their amino acid sequence deduced. Expression of the cDNA for OCIF in transgenic host such as CHO cell and purification of recombinant OCIF, and cloning of genomic DNA for human OCIF are demonstrated. Monoclonal/polyclonal antibodies to OCIF are also prepared for use in the assay of ***OCIF.***

```
=> E MOCHIZUKI SHINICHI/IN 25
E1            2     MOCHIZUKI SHIN ICHI/IN
E2            1     MOCHIZUKI SHINGO/IN
E3           23 --> MOCHIZUKI SHINICHI/IN
E4            3     MOCHIZUKI SHINICHIRO/IN
E5            9     MOCHIZUKI SHINJI/IN
E6           17     MOCHIZUKI SHINOBU/IN
E7           19     MOCHIZUKI SHINSUKE/IN
E8            4     MOCHIZUKI SHINYA/IN
E9            7     MOCHIZUKI SHIRO/IN
E10          16     MOCHIZUKI SHOGO/IN
E11          19     MOCHIZUKI SHOICHI/IN
E12           4     MOCHIZUKI SHOJI/IN
E13           2     MOCHIZUKI SHOKOU/IN
E14           4     MOCHIZUKI SHOTARO/IN
E15           1     MOCHIZUKI SHOUJI/IN
E16           1     MOCHIZUKI SHOUKOU/IN
E17           1     MOCHIZUKI SHOZO/IN
E18          36     MOCHIZUKI SHU/IN
E19           1     MOCHIZUKI SHUGOU/IN
E20           2     MOCHIZUKI SHUICHI/IN
E21           1     MOCHIZUKI SHUICHIRO/IN
E22          10     MOCHIZUKI SHUJI/IN
E23           1     MOCHIZUKI SHUKO/IN
E24           5     MOCHIZUKI SHUKOU/IN
E25           9     MOCHIZUKI SHUNJI/IN

=> S (E3) AND ( OCIF)
             23 "MOCHIZUKI SHINICHI"/IN
            143 OCIF
              1 OCIFS
            143 OCIF
                  (OCIF OR OCIFS)
L4            3 ("MOCHIZUKI SHINICHI"/IN) AND ( OCIF)

=> DIS L4 1 IBIB IABS
THE ESTIMATED COST FOR THIS REQUEST IS 2.83 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L4   ANSWER 1 OF 3  CAPLUS  COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:         2004:584657  CAPLUS
DOCUMENT NUMBER:          141:145689
TITLE:                    Remedies and preventives for bone metabolism disorder
                          containing osteoclastogenesis inhibitory
                          factor-polysaccharide composites
INVENTOR(S):              Yamamoto, Shinichi; Okada, Junichi; Kurihara, Atsushi;
                          Numasawa, Taku; Kondo, Junichi; Tsuda, Eisuke;
                          Mochizuki, Shinichi; Miyazaki, Hideki; Nishi,
                          Hirotaka
PATENT ASSIGNEE(S):       Sankyo Co., Ltd., Japan
SOURCE:                   Jpn. Kokai Tokkyo Koho, 41 pp.
                          CODEN: JKXXAF
```

DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004203747	A	20040722	JP 2002-371193	20021224

PRIORITY APPLN. INFO.: JP 2002-371193 20021224

ABSTRACT:
The invention relates to remedies and/or preventives for bone metabolism disorder, characterized by containing composite compds. consisting of osteoclastogenesis inhibitory factor (OCIF) or its related compound and polysaccharide. A recombinant human OCIF (dimer) was reacted with dextran sulfate sodium sulfur to make an injection. The composite showed lower heparin adsorption rate. Also, the OCIF content in the composite was analyzed by ELISA.

=> DIS L4 2 IBIB IABS
THE ESTIMATED COST FOR THIS REQUEST IS 2.83 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L4 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:4784 CAPLUS
DOCUMENT NUMBER: 138:61269
TITLE: A complex comprising OCIF and polysaccharide
INVENTOR(S): Yamamoto, Shinichi; Okada, Junichi; Kurihara, Atsushi; Numazawa, Taku; Kondo, Junichi; Tsuda, Eisuke; Mochizuki, Shinichi; Nishi, Hirotaka; Miyazaki, Hideki
PATENT ASSIGNEE(S): Sankyo Company Limited, Japan
SOURCE: Eur. Pat. Appl., 31 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1270015	A2	20030102	EP 2002-254497	20020626
EP 1270015	A3	20040225		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
IN 2002CA00387	A	20050311	IN 2002-CA387	20020625
US 2003045456	A1	20030306	US 2002-183091	20020627
ZA 2002005164	A	20030324	ZA 2002-5164	20020627
CA 2392383	A1	20021229	CA 2002-2392383	20020628
NO 2002003144	A	20021230	NO 2002-3144	20020628
AU 200250719	A	20030102	AU 2002-50719	20020628
AU 783126	B2	20050929		
HU 200202119	A2	20030428	HU 2002-2119	20020628
JP 2003160601	A	20030603	JP 2002-190407	20020628
BR 2002002439	A	20030610	BR 2002-2439	20020628
SG 98059	A1	20030820	SG 2002-3944	20020628
RU 2232594	C2	20040720	RU 2002-117385	20020628
CN 1442201	A	20030917	CN 2002-155849	20020629
US 2003139325	A1	20030724	US 2003-364045	20030211
US 2006084595	A1	20060420	US 2005-254836	20051021

PRIORITY APPLN. INFO.: JP 2001-198985 A 20010629
US 2002-183091 A1 20020627

ABSTRACT:

A novel complex comprising at least one substance selected from the group consisting of osteoclastogenesis-inhibitory factor (OCIF), analogs thereof, and variants thereof, which is bound to at least one substance selected from the group consisting of polysaccharides and derivs. thereof shows prolonged retention in the bloodstream after administration making it useful in the treatment and prophylaxis of bone metabolic diseases.

=> DIS L4 3 IBIB IABS
THE ESTIMATED COST FOR THIS REQUEST IS 2.83 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L4 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:290857 CAPLUS
DOCUMENT NUMBER: 132:284272
TITLE: Remedies containing osteoclastogenesis inhibitory factor for bone metabolic errors
INVENTOR(S): Mochizuki, Shinichi; Fujise, Nobuaki; Masuyama, Chiharu; Tsuda, Eisuke; Higashio, Kanji
PATENT ASSIGNEE(S): Snow Brand Milk Products Co., Ltd., Japan; Sankyo Co., Ltd.
SOURCE: PCT Int. Appl., 32 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000024416	A1	20000504	WO 1999-JP5963	19991028
W: AU, BR, CA, CN, CZ, HU, ID, IL, IN, JP, KR, MX, NO, NZ, PL, RU, TR, US, ZA				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2347107	A1	20000504	CA 1999-2347107	19991028
AU 9964877	A	20000515	AU 1999-64877	19991028
AU 755422	B2	20021212		
BR 9914834	A	20010814	BR 1999-14834	19991028
EP 1127578	A1	20010829	EP 1999-952793	19991028
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
TR 200101146	T2	20010921	TR 2001-200101146	19991028
HU 200104126	A2	20020328	HU 2001-4126	19991028
TW 529954	B	20030501	TW 1999-88118658	19991028
RU 2223782	C2	20040220	RU 2001-114216	19991028
NZ 511506	A	20040227	NZ 1999-511506	19991028
JP 3860415	B2	20061220	JP 2000-578024	19991028
US 2001031725	A1	20011018	US 2001-834008	20010412
US 6919312	B2	20050719		
ZA 2001003296	A	20011025	ZA 2001-3296	20010423
IN 2001KN00461	A	20050311	IN 2001-KN461	20010424
NO 2001002106	A	20010621	NO 2001-2106	20010427
PRIORITY APPLN. INFO.:			JP 1998-322874 A	19981028
			WO 1999-JP5963 W	19991028

ABSTRACT:
The invention relates to novel remedies for bone metabolic errors. These remedies comprise at least one member selected from the group consisting of osteoclastogenesis inhibitory factor (OCIF), analogs thereof and variants thereof and polysaccharides or derivs. thereof. As the polysaccharides or derivs. thereof, use may be made of heparin, dextran sulfate, etc. These remedies have excellent therapeutic effects on bone metabolic errors such as osteoporosis, hypercalcemia and rheumatoid arthritis

and can sustain the activities over a long time, which makes them highly useful as drugs. An injection solution was formulated containing osteoclastogenesis inhibitory factor 500 μg, heparin 2 mg and 0.15 M NaCl- and 0.01 % Tween 80-containing 10 mM phosphate buffer.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
=> E YANO KAZUKI/IN 25
E1          77     YANO KAZUHISA/IN
E2           2     YANO KAZUHITO/IN
E3           9 --> YANO KAZUKI/IN
E4           1     YANO KAZUMASA/IN
E5           1     YANO KAZUNARI/IN
E6          83     YANO KAZUNORI/IN
E7          53     YANO KAZUO/IN
E8           3     YANO KAZUTAKA/IN
E9           4     YANO KAZUTOSHI/IN
E10         14     YANO KAZUYA/IN
E11         10     YANO KAZUYOSHI/IN
E12         13     YANO KAZUYUKI/IN
E13         31     YANO KEIICHI/IN
E14         17     YANO KEIJI/IN
E15         15     YANO KEIKO/IN
E16          6     YANO KEISHI/IN
E17          3     YANO KEISUKE/IN
E18          6     YANO KEITA/IN
E19          1     YANO KEITARO/IN
E20          8     YANO KEIWA/IN
E21          2     YANO KEIYA/IN
E22          1     YANO KENFUKE/IN
E23          3     YANO KENGO/IN
E24         29     YANO KENICHI/IN
E25         18     YANO KENICHIRO/IN

=> S (E3) AND ( OCIF)
             9 "YANO KAZUKI"/IN
           143 OCIF
             1 OCIFS
           143 OCIF
                 (OCIF OR OCIFS)
L5           6 ("YANO KAZUKI"/IN) AND ( OCIF)

=> DIS L5 1 IBIB IABS
THE ESTIMATED COST FOR THIS REQUEST IS 2.83 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L5   ANSWER 1 OF 6  CAPLUS  COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:         2006:1109548  CAPLUS
DOCUMENT NUMBER:          145:450102
TITLE:                    cDNA cloning and sequences for protein OSIF
                          (osteoclastogenesis inhibitory factor), and methods
                          for its production in mammalian cells
INVENTOR(S):              Goto, Masaaki; Tsuda, Eisuke; Mochizuki, Shin'ichi;
                          Yano, Kazuki; Kobayashi, Fumie; Shima,
                          Nobuyuki; Yasuda, Hisataka; Nakagawa, Nobuaki;
                          Morinaga, Tomonori; Ueda, Masatsugu; Higashio, Kanji
PATENT ASSIGNEE(S):       Sankyo Co., Ltd., Japan
SOURCE:                   U.S., 85pp.
                          CODEN: USXXAM
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   2
```

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 7125686	B1	20061024	US 1997-915004	19970820
IL 117175	A	20051120	IL 1996-117175	19960219
CA 2213469	A1	19960829	CA 1996-2213469	19960220
WO 9626217	A1	19960829	WO 1996-JP374	19960220
W: AU, CA, CN, FI, HU, JP, KR, MX, NO, NZ, RU, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
ZA 9601334	A	19970820	ZA 1996-1334	19960220
CN 1175956	A	19980311	CN 1996-192019	19960220
RU 2238948	C2	20041027	RU 2002-120050	19960220
PT 816380	T	20041231	PT 1996-902484	19960220
ES 2227579	T3	20050401	ES 1996-902484	19960220
EP 1528103	A1	20050504	EP 2004-76464	19960220
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
CN 1763194	A	20060426	CN 2005-10091137	19960220
TW 538049	B	20030621	TW 1996-85108022	19960703
US 2002051969	A1	20020502	US 1998-62113	19980417
US 7205397	B2	20070417		
US 6919434	B1	20050719	US 1999-338063	19990623
US 2003153048	A1	20030814	US 2002-232858	20020903
US 6855808	B2	20050215		
US 2004142426	A1	20040722	US 2004-785109	20040225
US 2004143859	A1	20040722	US 2004-785114	20040225
JP 2005013217	A	20050120	JP 2004-63029	20040305
US 2005014229	A1	20050120	US 2004-929958	20040831
US 2005026837	A1	20050203	US 2004-929748	20040831
US 2005118682	A1	20050602	US 2004-979303	20041103
US 2005124054	A1	20050609	US 2004-979654	20041103

PRIORITY APPLN. INFO.:		
JP 1995-54977	A	19950220
JP 1995-207508	A	19950721
WO 1996-JP374	A2	19960220
CN 1996-192019	A3	19960220
EP 1996-902484	A3	19960220
JP 1996-525553	A	19960220
RU 1997-115710	A	19960220
US 1997-915004	A3	19970820
US 2002-232858	A1	20020903
JP 2003-177872	A3	20030623

ABSTRACT:
The invention provides a protein which inhibits osteoclast differentiation and/or maturation, termed osteoclastogenesis inhibitory factor (OCIF), as well as a procedure to produce the OCIF protein. The ***OCIF*** protein was isolated from human embryonic lung fibroblasts IMR-90. The inventors have established a method for accumulating the protein to a high concentration by culturing IMR-90 cells on alumina ceramic pieces, which function as cell adherence matrixes. The OSIF protein has a mol. weight (by SDS-PAGE) of 60 kD under reducing conditions and mol. wts. of 60 kD (a monomer) and 120 kD (a homodimer) under non-reducing conditions, and has affinity for both cation-exchange resins and heparin. Provided are cDNA and protein sequences for OCIF, as well as antibodies having specific affinity for the protein or a method for determining protein concentration using these antibodies.

REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> DIS L5 2 IBIB IABS
THE ESTIMATED COST FOR THIS REQUEST IS 2.83 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L5 ANSWER 2 OF 6 CAPLUS

ACCESSION NUMBER: 2002:777987 CAPLUS
DOCUMENT NUMBER: 137:277804
TITLE: Monoclonal antibodies specific to complex of osteoclastogenesis inhibitory factor with soluble OCIF-binding molecule and for diagnosis and therapy of bone metabolic disorders
INVENTOR(S): Washida, Naohiro; Satake, Toshiko; Yano, Kazuki
PATENT ASSIGNEE(S): Sankyo Company, Limited, Japan
SOURCE: PCT Int. Appl., 42 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002079256	A1	20021010	WO 2002-JP2909	20020326
W: AU, BR, CA, CN, CO, CZ, HU, ID, IL, IN, KR, MX, NO, NZ, PH, PL, RU, SG, SK, US, VN, ZA				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
JP 2003160600	A	20030603	JP 2002-83678	20020325
AU 2002239068	A1	20021015	AU 2002-239068	20020326
PRIORITY APPLN. INFO.:			JP 2001-88174 A	20010326
			WO 2002-JP2909 W	20020326

ABSTRACT:
Provided are antibodies binding to complex of osteoclastogenesis inhibitory factor (OCIF) with a soluble OCIF-binding mol. (sOBM) (***OCIF*** /sOBM complex) occurring in bodily fluids; hybridomas producing these antibodies; process for producing the above antibodies, with the use of these hybridomas; and preventives or remedies for bone metabolic errors containing these antibodies as the active ingredient. The invention is related to methods and test kits of quantifying the OCIF/sOMB complex. The above-described antibodies are also useful in diagnosing, preventing and treating bone metabolic errors (in particular, rheumatoid arthritis) or as an anal. reagent for laboratory use.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> DIS L5 3 IBIB IABS
THE ESTIMATED COST FOR THIS REQUEST IS 2.83 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L5 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:615830 CAPLUS
DOCUMENT NUMBER: 137:139368
TITLE: Antibody binding to osteoclastogenesis inhibitory factor (OCIF)-soluble OCIF binding molecule (sOBM) complex and use in diagnosis and therapy of bone metabolism disease
INVENTOR(S): Washida, Naohiro; Satake, Toshiko; Yano, Kazuki
PATENT ASSIGNEE(S): Sankyo Company, Limited, Japan
SOURCE: PCT Int. Appl., 34 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002062990	A1	20020815	WO 2002-JP963	20020206
W: AU, BR, CA, CN, CO, CZ, HU, ID, IL, IN, KR, MX, NO, NZ, PH, PL, RU, SG, SK, US, VN, ZA				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
AU 2002230154	A1	20020819	AU 2002-230154	20020206
JP 2003153690	A	20030527	JP 2002-29521	20020206
PRIORITY APPLN. INFO.:			JP 2001-31422	A 20010207
			WO 2002-JP963	W 20020206

ABSTRACT:
Antibodies binding to osteoclastogenesis inhibitory factor (OCIF)-soluble OCIF binding mol. (sOBM) complex, and use in diagnosis, prevention, or treatment of bone metabolism abnormality, are disclosed. Diagnosis, prevention, or treatment of rheumatoid arthritis, osteoarthritis, osteoporosis, hypercalcemia, bone Paget's disease, renal bone abnormal nutrition symptom, is claimed. Diagnostic reagent kits and hybridomas for the production of antibodies, are also claimed.

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> DIS L5 4 IBIB IABS
THE ESTIMATED COST FOR THIS REQUEST IS 2.83 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L5 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:223074 CAPLUS
DOCUMENT NUMBER: 130:222129
TITLE: Method for diagnosing bone dysbolism
INVENTOR(S): Yano, Kazuki; Kobayashi, Fumie; Goto, Masaaki; Washida, Naohiro; Tsuda, Eisuke; Higashio, Kanji; Yamada, Yoshiji
PATENT ASSIGNEE(S): Snow Brand Milk Products Co., Ltd., Japan
SOURCE: PCT Int. Appl., 36 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9915691	A1	19990401	WO 1998-JP3421	19980731
W: AU, CA, CN, HU, IL, JP, KR, MX, NO, NZ, RU, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2269114	A1	19990324	CA 1998-2269114	19980731
AU 9884617	A	19990412	AU 1998-84617	19980731
AU 739304	B2	20011011		
EP 974671	A1	20000126	EP 1998-935306	19980731
EP 974671	B1	20060531		
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE, PT, IE, FI				
HU 200002062	A2	20001028	HU 2000-2062	19980731
NZ 335759	A	20020201	NZ 1998-335759	19980731
RU 2203497	C2	20030427	RU 1999-113447	19980731
IL 129535	A	20030706	IL 1998-129535	19980731
AT 328281	T	20060615	AT 1998-935306	19980731
ZA 9806974	A	19990204	ZA 1998-6974	19980804
MX 9904633	A	20000930	MX 1999-4633	19990519
NO 9902472	A	19990521	NO 1999-2472	19990521
US 2002004207	A1	20020110	US 1999-308800	19990524

US 6693175	B2	20040217			
US 2004033533	A1	20040219	US 2003-641088		20030815
US 6998242	B2	20060214			
PRIORITY APPLN. INFO.:			JP 1997-276475	A	19970924
			WO 1998-JP3421	W	19980731
			US 1999-308800	A1	19990524

ABSTRACT:
A method for diagnosing bone dysbolism, in particular osteoporosis and joint diseases characterized by measuring the concentration of osteoclastogenesis inhibitory
factors (OCIFs) in the bodily fluid; a monoclonal antibody equally recognizing monomeric and dimeric OCIFs; a monoclonal antibody selectively recognizing the dimeric OCIF alone; and OCIF assay kits which contain the monoclonal antibodies of the above two types, recognizing different epitopes of OCIFs, and having a high affinity and a dissociation constant with an antigen of 2 x 10-7 M or below. Immunization of Balb/c mice by i.p. injection, collection of spleen of the immunized mice, hybridization with mouse myeloma P3x63-AG8.653, and growth of the monoclonal antibody-producing hybridoma by the ascite method were shown. The above antibodies and kits are useful in diagnosing bone dysbolism, in particular, osteoporosis and joint diseases or anal. reagents for laboratory use, etc.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> DIS L5 5 IBIB IABS
THE ESTIMATED COST FOR THIS REQUEST IS 2.83 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L5 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:	1998:708857 CAPLUS
DOCUMENT NUMBER:	129:326927
TITLE:	Preparation of osteoclastogenesis inhibitory factor-binding molecule from mouse and cloning and expression of its encoding cDNA
INVENTOR(S):	Yamaguchi, Kyoji; Yasuda, Hisataka; Nakagawa, Nobuaki; Shima, Nobuyuki; Kinosaki, Masahiko; Tsuda, Eisuke; Goto, Masaaki; Yano, Kazuki; Tomoyasu, Akihiro; Kobayashi, Fumie; et al.
PATENT ASSIGNEE(S):	Snow Brand Milk Products Co., Ltd., Japan
SOURCE:	PCT Int. Appl., 151 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	Japanese
FAMILY ACC. NUM. COUNT:	1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9846644	A1	19981022	WO 1998-JP1728	19980415
W: AU, CA, CN, HU, IL, JP, KR, MX, NO, NZ, RU, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2257247	A1	19981022	CA 1998-2257247	19980415
ZA 9803159	A	19981103	ZA 1998-3159	19980415
AU 9868518	A	19981111	AU 1998-68518	19980415
AU 735355	B2	20010705		
EP 911342	A1	19990428	EP 1998-914034	19980415
EP 911342	B1	20060531		
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE, PT, IE, FI, CY				
CN 1222917	A	19990714	CN 1998-800477	19980415
HU 200000717	A2	20000628	HU 2000-717	19980415
NZ 332995	A	20000728	NZ 1998-332995	19980415

JP 3523650	B2	20040426	JP 1998-543741	19980415
RU 2238949	C2	20041027	RU 1999-100615	19980415
EP 1657255	A1	20060517	EP 2005-17241	19980415
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE, PT, IE, FI, CY				
AT 328006	T	20060615	AT 1998-914034	19980415
PT 911342	T	20060831	PT 1998-914034	19980415
ES 2263204	T3	20061201	ES 1998-914034	19980415
KR 2000016598	A	20000325	KR 1998-710194	19981212
NO 9805848	A	19990215	NO 1998-5848	19981214
NO 322632	B1	20061106		
MX 9810700	A	20000831	MX 1998-10700	19981215
US 2003176647	A1	20030918	US 2002-167182	20020611
US 2003208045	A1	20031106	US 2003-460623	20030613
US 7192718	B2	20070320		
JP 2004041195	A	20040212	JP 2003-169309	20030613
US 2005003457	A1	20050106	US 2004-854300	20040527
JP 2005176847	A	20050707	JP 2004-381995	20041228
US 2005208580	A1	20050922	US 2005-135521	20050524
US 2007009520	A1	20070111	US 2006-513178	20060831

PRIORITY APPLN. INFO.:	JP 1997-97808	A 19970415
	JP 1997-151434	A 19970609
	JP 1997-217897	A 19970812
	JP 1997-224803	A 19970821
	JP 1997-332241	A 19971202
	EP 1998-914034	A3 19980415
	JP 1998-543741	A3 19980415
	WO 1998-JP1728	W 19980415
	US 1998-202455	A3 19981215
	US 2002-167182	A1 20020611
	JP 2003-169309	A3 20030613
	US 2004-854300	A1 20040527

ABSTRACT:
A osteoclastogenesis inhibitory factor (OCIF)-binding mol. (OBM) is prepared from the membrane fractions of mouse osteoblastoid stroma cell line ST2 and characterized. OBM exhibits a mol. weight of 30,000-40,000 or 40,000±4,000 by SDS-PAGE, or 90,000-110,000 if crosslinked. The cDNA encoding OBM is isolated from ST2 cell by using the primers derived from the partial peptide sequence of OBM, and its amino acid sequence deduced. Preparation of soluble form OBM
(amino acids 72-316 or 76-316) in transgenic Escherichia coli as a fusion protein with thioredoxin was also shown. Claimed are a method for screening a substance regulating the expression of OBM, a substance inhibiting or modifying the biol. activity of OBM, or an OBM receptor, medicinal compns. containing the substances thus obtained, and antibodies to OBM and drugs containing them.

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> DIS L5 6 IBIB IABS
THE ESTIMATED COST FOR THIS REQUEST IS 2.83 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L5 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1996:628559 CAPLUS
DOCUMENT NUMBER: 125:271959
TITLE: Cloning and expression of cDNA for human osteoclastogenesis inhibitory factor and variants and mutants and their clinical uses
INVENTOR(S): Goto, Masaaki; Tsuda, Eisuke; Mochizuki, Shin'ichi; Yano, Kazuki; Kobayashi, Fumie; Shima, Nobuyuki; Yasuda, Hisataka; Nakagawa, Nobuaki; Morinaga, Tomonori; et al.; et al.
PATENT ASSIGNEE(S): Snow Brand Milk Products Co., Ltd., Japan; Goto

	Masaaki
SOURCE:	PCT Int. Appl., 183 pp.
	CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	Japanese
FAMILY ACC. NUM. COUNT:	2
PATENT INFORMATION:	

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9626217	A1	19960829	WO 1996-JP374	19960220
W: AU, CA, CN, FI, HU, JP, KR, MX, NO, NZ, RU, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
IL 117175	A	20051120	IL 1996-117175	19960219
CA 2213469	A1	19960829	CA 1996-2213469	19960220
AU 9646773	A	19960911	AU 1996-46773	19960220
AU 702557	B2	19990225		
ZA 9601334	A	19970820	ZA 1996-1334	19960220
EP 816380	A1	19980107	EP 1996-902484	19960220
EP 816380	B1	20040825		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
CN 1175956	A	19980311	CN 1996-192019	19960220
HU 9900422	A2	19990628	HU 1999-422	19960220
HU 9900422	A3	20021128		
HU 224570	B1	20051028		
RU 2194714	C2	20021220	RU 1997-115710	19960220
JP 3502102	B2	20040302	JP 1996-525553	19960220
AT 274580	T	20040915	AT 1996-902484	19960220
RU 2238948	C2	20041027	RU 2002-120050	19960220
PT 816380	T	20041231	PT 1996-902484	19960220
ES 2227579	T3	20050401	ES 1996-902484	19960220
EP 1528103	A1	20050504	EP 2004-76464	19960220
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
CN 1763194	A	20060426	CN 2005-10091137	19960220
TW 538049	B	20030621	TW 1996-85108022	19960703
NO 9703801	A	19971020	NO 1997-3801	19970819
NO 318898	B1	20050518		
FI 9703402	A	19971017	FI 1997-3402	19970820
US 7125686	B1	20061024	US 1997-915004	19970820
US 2002051969	A1	20020502	US 1998-62113	19980417
US 7205397	B2	20070417		
US 6919434	B1	20050719	US 1999-338063	19990623
US 2003153048	A1	20030814	US 2002-232858	20020903
US 6855808	B2	20050215		
JP 2004000237	A	20040108	JP 2003-177872	20030623
JP 3793180	B2	20060705		
US 2004142426	A1	20040722	US 2004-785109	20040225
US 2004143859	A1	20040722	US 2004-785114	20040225
JP 2005013217	A	20050120	JP 2004-63029	20040305
US 2005014229	A1	20050120	US 2004-929958	20040831
US 2005026837	A1	20050203	US 2004-929748	20040831
US 2005118682	A1	20050602	US 2004-979303	20041103
US 2005124054	A1	20050609	US 2004-979654	20041103

PRIORITY APPLN. INFO.:	JP 1995-54977	A 19950220
	JP 1995-207508	A 19950721
	JP 1996-525553	A 19960220
	CN 1996-192019	A3 19960220
	EP 1996-902484	A3 19960220
	RU 1997-115710	A 19960220
	WO 1996-JP374	W 19960220
	US 1997-915004	A3 19970820
	US 2002-232858	A1 20020903
	JP 2003-177872	A3 20030623

ABSTRACT:

Osteoclastogenesis inhibitory factor (OCIF), a novel protein having an activity of suppressing the differentiation and/or maturation of osteoclasts, is prepared from the culture of human fibroblast IMR-90 and characterized. This protein has a mol. weight of about 60 kDa under reductive conditions or about 120 kDa under non-reductive conditions. It also exhibits affinity to cationic exchanger and heparin. The cDNA encoding OCIF, variants OCIF2.apprx.5, and its mutants are provided, and their amino acid sequence deduced. Expression of the cDNA for OCIF in transgenic host such as CHO cell and purification of recombinant OCIF, and cloning of genomic DNA for human OCIF are demonstrated. Monoclonal/polyclonal antibodies to OCIF are also prepared for use in the assay of ***OCIF.***

```
=> E KOBAYASHI FUMIE/IN 25
E1          14      KOBAYASHI FUMIAKI/IN
E2           1      KOBAYASHI FUMICHIRO/IN
E3          12 --> KOBAYASHI FUMIE/IN
E4          17      KOBAYASHI FUMIHIKO/IN
E5           6      KOBAYASHI FUMIHIRO/IN
E6           1      KOBAYASHI FUMIHISA/IN
E7           2      KOBAYASHI FUMIHITO/IN
E8           2      KOBAYASHI FUMIKA/IN
E9          58      KOBAYASHI FUMIKAZU/IN
E10          5      KOBAYASHI FUMIKO/IN
E11         15      KOBAYASHI FUMINORI/IN
E12         92      KOBAYASHI FUMIO/IN
E13         19      KOBAYASHI FUMITO/IN
E14         29      KOBAYASHI FUMITOSHI/IN
E15         10      KOBAYASHI FUMIYA/IN
E16          3      KOBAYASHI FUMIYOSHI/IN
E17         14      KOBAYASHI FUMIYUKI/IN
E18          1      KOBAYASHI FUMIZO/IN
E19          8      KOBAYASHI FUMYUKI/IN
E20          1      KOBAYASHI FUSAYO/IN
E21          1      KOBAYASHI FUTAJIRO/IN
E22         11      KOBAYASHI FUTOSHI/IN
E23          1      KOBAYASHI GAKUSHI/IN
E24          1      KOBAYASHI GENICHI/IN
E25          3      KOBAYASHI GENMON/IN

=> S (E3) AND ( OCIF)
            12 "KOBAYASHI FUMIE"/IN
           143 OCIF
             1 OCIFS
           143 OCIF
                 (OCIF OR OCIFS)
L6           4 ("KOBAYASHI FUMIE"/IN) AND ( OCIF)

=> DIS L6 1 TI

L6   ANSWER 1 OF 4  CAPLUS  COPYRIGHT 2007 ACS on STN
TI   cDNA cloning and sequences for protein OSIF (osteoclastogenesis inhibitory
     factor), and methods for its production in mammalian cells


=> DIS L6 2 TI

L6   ANSWER 2 OF 4  CAPLUS  COPYRIGHT 2007 ACS on STN
TI   Method for diagnosing bone dysbolism


=> DIS L6 3 TI
```

```
L6   ANSWER 3 OF 4  CAPLUS  COPYRIGHT 2007 ACS on STN
TI   Preparation of osteoclastogenesis inhibitory factor-binding molecule from
     mouse and cloning and expression of its encoding cDNA


=> DIS L6 4 TI

L6   ANSWER 4 OF 4  CAPLUS  COPYRIGHT 2007 ACS on STN
TI   Cloning and expression of cDNA for human osteoclastogenesis inhibitory
     factor and variants and mutants and their clinical uses


=> E SHIMA NOBUYUKI/IN 25
E1            7     SHIMA NOBUKI/IN
E2           29     SHIMA NOBUTO/IN
E3           18 --> SHIMA NOBUYUKI/IN
E4            1     SHIMA NORIHIKO/IN
E5           25     SHIMA NORIKO/IN
E6            1     SHIMA NORIO/IN
E7            1     SHIMA NORITOMO/IN
E8            2     SHIMA NORIYUKI/IN
E9            1     SHIMA OKITAMA/IN
E10          12     SHIMA OSAMU/IN
E11           1     SHIMA RIKAKO/IN
E12           1     SHIMA RINDGE/IN
E13           6     SHIMA RYOTO/IN
E14           7     SHIMA SACHIKO/IN
E15           1     SHIMA SADASHI/IN
E16           2     SHIMA SATOHARU/IN
E17          39     SHIMA SATOSHI/IN
E18           1     SHIMA SEIICHI/IN
E19           1     SHIMA SEISHI/IN
E20           1     SHIMA SEIZO/IN
E21           2     SHIMA SHIGENOBU/IN
E22           3     SHIMA SHIGEO/IN
E23           2     SHIMA SHIGERU/IN
E24           3     SHIMA SHIGEYUKI/IN
E25          15     SHIMA SHINICHI/IN

=> S (E3) AND ( OCIF)
             18 "SHIMA NOBUYUKI"/IN
            143 OCIF
              1 OCIFS
            143 OCIF
                  (OCIF OR OCIFS)
L7            4 ("SHIMA NOBUYUKI"/IN) AND ( OCIF)

=> DIS L7 1 TI

L7   ANSWER 1 OF 4  CAPLUS  COPYRIGHT 2007 ACS on STN
TI   cDNA cloning and sequences for protein OSIF (osteoclastogenesis inhibitory
     factor), and methods for its production in mammalian cells


=> DIS L7 2 TI

L7   ANSWER 2 OF 4  CAPLUS  COPYRIGHT 2007 ACS on STN
TI   Cloning of cDNA for protein capable of binding to the osteoclastogenesis
     inhibitory factor-binding molecule (OBM) from mice


=> DIS L7 3 TI
```

```
L7   ANSWER 3 OF 4  CAPLUS  COPYRIGHT 2007 ACS on STN
TI   Preparation of osteoclastogenesis inhibitory factor-binding molecule from
     mouse and cloning and expression of its encoding cDNA


=> DIS L7 4 TI

L7   ANSWER 4 OF 4  CAPLUS  COPYRIGHT 2007 ACS on STN
TI   Cloning and expression of cDNA for human osteoclastogenesis inhibitory
     factor and variants and mutants and their clinical uses


=> E YASUDA HISATAKA/IN 25
E1            2     YASUDA HISAO/IN
E2           12     YASUDA HISASHI/IN
E3            5 --> YASUDA HISATAKA/IN
E4           16     YASUDA HISATOSHI/IN
E5            1     YASUDA HISAYUKI/IN
E6            1     YASUDA HITOMI/IN
E7           49     YASUDA HITOSHI/IN
E8           29     YASUDA HOZUMI/IN
E9            1     YASUDA ICHIE/IN
E10           1     YASUDA ICHIJI/IN
E11           1     YASUDA ICHIRO/IN
E12           1     YASUDA IKUE/IN
E13          15     YASUDA IKUO/IN
E14          78     YASUDA ISAMU/IN
E15          22     YASUDA ISAO/IN
E16           1     YASUDA ISSEI/IN
E17           3     YASUDA ITARU/IN
E18           5     YASUDA IZUMI/IN
E19           9     YASUDA JUJI/IN
E20          12     YASUDA JUN/IN
E21          21     YASUDA JUNICHI/IN
E22           1     YASUDA JUNICHI OJI/IN
E23           6     YASUDA JUNJI/IN
E24           5     YASUDA JUNKO/IN
E25           1     YASUDA JUZO/IN

=> S (E3) AND ( OCIF)
             5 "YASUDA HISATAKA"/IN
           143 OCIF
             1 OCIFS
           143 OCIF
                 (OCIF OR OCIFS)
L8           4 ("YASUDA HISATAKA"/IN) AND ( OCIF)

=> DIS L8 1 TI

L8   ANSWER 1 OF 4  CAPLUS  COPYRIGHT 2007 ACS on STN
TI   cDNA cloning and sequences for protein OSIF (osteoclastogenesis inhibitory
     factor), and methods for its production in mammalian cells


=> DIS L8 2 TI

L8   ANSWER 2 OF 4  CAPLUS  COPYRIGHT 2007 ACS on STN
TI   Preparation of osteoclastogenesis inhibitory factor-binding molecule from
     mouse and cloning and expression of its encoding cDNA


=> DIS L8 3 TI

L8   ANSWER 3 OF 4  CAPLUS  COPYRIGHT 2007 ACS on STN
```

```
TI   Cloning of genomic DNA for human osteoclastogenesis inhibitory factor


=> DIS L8 4 TI

L8   ANSWER 4 OF 4  CAPLUS  COPYRIGHT 2007 ACS on STN
TI   Cloning and expression of cDNA for human osteoclastogenesis inhibitory
     factor and variants and mutants and their clinical uses


=> E NAKAGAWA NOBUAKI/IN 25
E1            4     NAKAGAWA NARYUKI/IN
E2           12     NAKAGAWA NOBORU/IN
E3           52 --> NAKAGAWA NOBUAKI/IN
E4            2     NAKAGAWA NOBUHIDE/IN
E5            8     NAKAGAWA NOBUHIRO/IN
E6            3     NAKAGAWA NOBUKO/IN
E7           48     NAKAGAWA NOBUO/IN
E8           16     NAKAGAWA NOBUYOSHI/IN
E9           28     NAKAGAWA NOBUYUKI/IN
E10          41     NAKAGAWA NORIAKI/IN
E11          18     NAKAGAWA NORIHIKO/IN
E12           2     NAKAGAWA NORIHIRO/IN
E13          23     NAKAGAWA NORIHISA/IN
E14           9     NAKAGAWA NORIKAZU/IN
E15           7     NAKAGAWA NORIKO/IN
E16           1     NAKAGAWA NORIMASA/IN
E17           7     NAKAGAWA NORIMITSU/IN
E18           5     NAKAGAWA NORIO/IN
E19           1     NAKAGAWA NORITAKE/IN
E20           2     NAKAGAWA NORITOSHI/IN
E21           1     NAKAGAWA NORIYOSHI/IN
E22           9     NAKAGAWA NORIYUKI/IN
E23           2     NAKAGAWA NORYUKI/IN
E24          19     NAKAGAWA NOZOMI/IN
E25           9     NAKAGAWA NOZOMU/IN

=> S (E3) AND ( OCIF)
            52 "NAKAGAWA NOBUAKI"/IN
           143 OCIF
             1 OCIFS
           143 OCIF
                 (OCIF OR OCIFS)
L9           4 ("NAKAGAWA NOBUAKI"/IN) AND ( OCIF)

=> DIS L9 1 TI

L9   ANSWER 1 OF 4  CAPLUS  COPYRIGHT 2007 ACS on STN
TI   cDNA cloning and sequences for protein OSIF (osteoclastogenesis inhibitory
     factor), and methods for its production in mammalian cells


=> DIS L9 2 TI

L9   ANSWER 2 OF 4  CAPLUS  COPYRIGHT 2007 ACS on STN
TI   Preparation of osteoclastogenesis inhibitory factor-binding molecule from
     mouse and cloning and expression of its encoding cDNA


=> DIS L9 3 TI

L9   ANSWER 3 OF 4  CAPLUS  COPYRIGHT 2007 ACS on STN
TI   Cloning of genomic DNA for human osteoclastogenesis inhibitory factor
```

```
=> DIS L9 4 TI

L9   ANSWER 4 OF 4  CAPLUS  COPYRIGHT 2007 ACS on STN
TI   Cloning and expression of cDNA for human osteoclastogenesis inhibitory
     factor and variants and mutants and their clinical uses


=> E MORINAGA TOMONORI/IN 25
E1            2     MORINAGA TETSUYA/IN
E2            1     MORINAGA TETUO/IN
E3           13 --> MORINAGA TOMONORI/IN
E4            4     MORINAGA TOSHIAKI/IN
E5            4     MORINAGA TOSHIKAZU/IN
E6            1     MORINAGA TSUGUHIKO/IN
E7           13     MORINAGA TSUTAE/IN
E8            9     MORINAGA TSUTO/IN
E9            9     MORINAGA TSUTOMU/IN
E10          17     MORINAGA TSUTOU/IN
E11          13     MORINAGA TSUYOSHI/IN
E12           4     MORINAGA YASUFUMI/IN
E13           1     MORINAGA YASUHIKO/IN
E14           3     MORINAGA YASUHIRO/IN
E15          27     MORINAGA YASUNORI/IN
E16          66     MORINAGA YASUSHI/IN
E17          10     MORINAGA YOJI/IN
E18           4     MORINAGA YOSHI/IN
E19           7     MORINAGA YOSHIAKI/IN
E20           7     MORINAGA YOSHIHIRO/IN
E21           1     MORINAGA YOSHIKAZU/IN
E22           1     MORINAGA YOSHIKI/IN
E23           4     MORINAGA YUICHI/IN
E24           2     MORINAGA YUJI/IN
E25           1     MORINAGA YUKARI/IN

=> S (E3) AND ( OCIF)
            13 "MORINAGA TOMONORI"/IN
           143 OCIF
             1 OCIFS
           143 OCIF
                 (OCIF OR OCIFS)
L10          5 ("MORINAGA TOMONORI"/IN) AND ( OCIF)

=> DIS L10 1 TI

L10  ANSWER 1 OF 5  CAPLUS  COPYRIGHT 2007 ACS on STN
TI   cDNA cloning and sequences for protein OSIF (osteoclastogenesis inhibitory
     factor), and methods for its production in mammalian cells


=> DIS L10 2 TI

L10  ANSWER 2 OF 5  CAPLUS  COPYRIGHT 2007 ACS on STN
TI   Cloning of cDNA for protein capable of binding to the osteoclastogenesis
     inhibitory factor-binding molecule (OBM) from mice


=> DIS L10 3 TI

L10  ANSWER 3 OF 5  CAPLUS  COPYRIGHT 2007 ACS on STN
TI   Transgenic animals lacking osteoclastogenesis inhibitory factor (
     OCIF)
```

```
=> DIS L10 4 TI

L10  ANSWER 4 OF 5  CAPLUS  COPYRIGHT 2007 ACS on STN
TI   Cloning of genomic DNA for human osteoclastogenesis inhibitory factor


=> DIS L10 5 TI

L10  ANSWER 5 OF 5  CAPLUS  COPYRIGHT 2007 ACS on STN
TI   Cloning and expression of cDNA for human osteoclastogenesis inhibitory
     factor and variants and mutants and their clinical uses


=> E UEDA MASATSUGU/IN 25
E1          93     UEDA MASATO/IN
E2          47     UEDA MASATOSHI/IN
E3          14 --> UEDA MASATSUGU/IN
E4           1     UEDA MASATSUNE/IN
E5          65     UEDA MASAYA/IN
E6           1     UEDA MASAYASU/IN
E7           1     UEDA MASAYO/IN
E8          35     UEDA MASAYOSHI/IN
E9          72     UEDA MASAYUKI/IN
E10          1     UEDA MASAZANE/IN
E11          1     UEDA MASHIRO/IN
E12          1     UEDA MASUHIRO/IN
E13          5     UEDA MASUMI/IN
E14          1     UEDA MASUMITSU/IN
E15          1     UEDA MASUO/IN
E16          1     UEDA MASUTAMI/IN
E17          1     UEDA MASUZO/IN
E18          1     UEDA MATSUEI/IN
E19          8     UEDA MATSUHIDE/IN
E20          3     UEDA MATSUSHIGE/IN
E21          2     UEDA MATSUTARO/IN
E22          1     UEDA MEGUMI/IN
E23          1     UEDA MEGUMU/IN
E24          1     UEDA MICHIHIKO/IN
E25          5     UEDA MICHIHIRO/IN

=> S (E3) AND ( OCIF)
            14 "UEDA MASATSUGU"/IN
           143 OCIF
             1 OCIFS
           143 OCIF
                 (OCIF OR OCIFS)
L11          1 ("UEDA MASATSUGU"/IN) AND ( OCIF)

=> DIS L11 1 TI

L11  ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2007 ACS on STN
TI   cDNA cloning and sequences for protein OSIF (osteoclastogenesis inhibitory
     factor), and methods for its production in mammalian cells


=> E HIGASHIO KANJI/IN 25
E1           6     HIGASHIO ATSUSHI/IN
E2           1     HIGASHIO CHIE/IN
E3          32 --> HIGASHIO KANJI/IN
E4          17     HIGASHIO KAZUHIRO/IN
E5           1     HIGASHIO KAZUTAKA/IN
E6           3     HIGASHIO KIMIHIKO/IN
E7           1     HIGASHIO KIYOSHI/IN
E8           1     HIGASHIO NAMI/IN
```

```
E9            1     HIGASHIO OSAMU/IN
E10           1     HIGASHIO TAKAYUKI/IN
E11           1     HIGASHIO TOSHIKI/IN
E12          19     HIGASHIO YASUHIKO/IN
E13           5     HIGASHIOGAWA TAKASHI/IN
E14           5     HIGASHIOHJI TAKASHI/IN
E15          49     HIGASHIOJI TAKASHI/IN
E16           8     HIGASHIOJI TAKUJI/IN
E17           3     HIGASHIOKA HIROSHI/IN
E18           1     HIGASHIOKA MASAYA/IN
E19           2     HIGASHIOKA NAGAHIRO/IN
E20           1     HIGASHIOKA NOBUHIRO/IN
E21           3     HIGASHIOKA OSAMU/IN
E22           1     HIGASHIOKA YASUYOSHI/IN
E23           9     HIGASHIONJI MASARU/IN
E24           9     HIGASHIOOJI TAKASHI/IN
E25           1     HIGASHIRA FUTOSHI/IN

=> S (E3) AND ( OCIF)
            32 "HIGASHIO KANJI"/IN
           143 OCIF
             1 OCIFS
           143 OCIF
                 (OCIF OR OCIFS)
L12          6 ("HIGASHIO KANJI"/IN) AND ( OCIF)

=> DIS L12 1 TI

L12  ANSWER 1 OF 6  CAPLUS  COPYRIGHT 2007 ACS on STN
TI   cDNA cloning and sequences for protein OSIF (osteoclastogenesis inhibitory
     factor), and methods for its production in mammalian cells


=> DIS L12 2 TI

L12  ANSWER 2 OF 6  CAPLUS  COPYRIGHT 2007 ACS on STN
TI   Remedies containing osteoclastogenesis inhibitory factor for bone
     metabolic errors


=> DIS L12 3 TI

L12  ANSWER 3 OF 6  CAPLUS  COPYRIGHT 2007 ACS on STN
TI   Proteins having osteoclastogenesis inhibitory factor (OCIF)
     inhibitory activity, their purification from osteoclasts, and uses for
     drug screening and pharmaceuticals


=> DIS L12 4 TI

L12  ANSWER 4 OF 6  CAPLUS  COPYRIGHT 2007 ACS on STN
TI   Cloning of cDNA for protein capable of binding to the osteoclastogenesis
     inhibitory factor-binding molecule (OBM) from mice


=> DIS L12 5 TI

L12  ANSWER 5 OF 6  CAPLUS  COPYRIGHT 2007 ACS on STN
TI   Transgenic animals lacking osteoclastogenesis inhibitory factor (
     OCIF)


=> DIS L12 6 TI
```

L12 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN
TI Method for diagnosing bone dysbolism

=> DIS L12 1 IBIB IABS
THE ESTIMATED COST FOR THIS REQUEST IS 2.83 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:N
REQUEST CANCELED

=> DIS L12 1 IBIB IABS
THE ESTIMATED COST FOR THIS REQUEST IS 2.83 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L12 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:1109548 CAPLUS
DOCUMENT NUMBER: 145:450102
TITLE: cDNA cloning and sequences for protein OSIF (osteoclastogenesis inhibitory factor), and methods for its production in mammalian cells
INVENTOR(S): Goto, Masaaki; Tsuda, Eisuke; Mochizuki, Shin'ichi; Yano, Kazuki; Kobayashi, Fumie; Shima, Nobuyuki; Yasuda, Hisataka; Nakagawa, Nobuaki; Morinaga, Tomonori; Ueda, Masatsugu; Higashio, Kanji
PATENT ASSIGNEE(S): Sankyo Co., Ltd., Japan
SOURCE: U.S., 85pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 7125686	B1	20061024	US 1997-915004	19970820
IL 117175	A	20051120	IL 1996-117175	19960219
CA 2213469	A1	19960829	CA 1996-2213469	19960220
WO 9626217	A1	19960829	WO 1996-JP374	19960220
W: AU, CA, CN, FI, HU, JP, KR, MX, NO, NZ, RU, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
ZA 9601334	A	19970820	ZA 1996-1334	19960220
CN 1175956	A	19980311	CN 1996-192019	19960220
RU 2238948	C2	20041027	RU 2002-120050	19960220
PT 816380	T	20041231	PT 1996-902484	19960220
ES 2227579	T3	20050401	ES 1996-902484	19960220
EP 1528103	A1	20050504	EP 2004-76464	19960220
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
CN 1763194	A	20060426	CN 2005-10091137	19960220
TW 538049	B	20030621	TW 1996-85108022	19960703
US 2002051969	A1	20020502	US 1998-62113	19980417
US 7205397	B2	20070417		
US 6919434	B1	20050719	US 1999-338063	19990623
US 2003153048	A1	20030814	US 2002-232858	20020903
US 6855808	B2	20050215		
US 2004142426	A1	20040722	US 2004-785109	20040225
US 2004143859	A1	20040722	US 2004-785114	20040225
JP 2005013217	A	20050120	JP 2004-63029	20040305
US 2005014229	A1	20050120	US 2004-929958	20040831
US 2005026837	A1	20050203	US 2004-929748	20040831
US 2005118682	A1	20050602	US 2004-979303	20041103
US 2005124054	A1	20050609	US 2004-979654	20041103

PRIORITY APPLN. INFO.:		
JP 1995-54977	A	19950220
JP 1995-207508	A	19950721
WO 1996-JP374	A2	19960220
CN 1996-192019	A3	19960220

EP 1996-902484	A3	19960220
JP 1996-525553	A	19960220
RU 1997-115710	A	19960220
US 1997-915004	A3	19970820
US 2002-232858	A1	20020903
JP 2003-177872	A3	20030623

ABSTRACT:
The invention provides a protein which inhibits osteoclast differentiation and/or maturation, termed osteoclastogenesis inhibitory factor (OCIF), as well as a procedure to produce the OCIF protein. The ***OCIF*** protein was isolated from human embryonic lung fibroblasts IMR-90. The inventors have established a method for accumulating the protein to a high concentration by culturing IMR-90 cells on alumina ceramic pieces, which function as cell adherence matrixes. The OSIF protein has a mol. weight (by SDS-PAGE) of 60 kD under reducing conditions and mol. wts. of 60 kD (a monomer) and 120 kD (a homodimer) under non-reducing conditions, and has affinity for both cation-exchange resins and heparin. Provided are cDNA and protein sequences for OCIF, as well as antibodies having specific affinity for the protein or a method for determining protein concentration using these antibodies.

REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=>